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## The Health Services of England and Wales

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THE CANADIAN PUBLIC HEALTH ASSOCIATION  
IN CO-OPERATION WITH  
THE AMERICAN PUBLIC HEALTH ASSOCIATION  
ANNOUNCES

## THE 1939 CANADIAN RURAL HEALTH CONSERVATION CONTEST

*. . . the third of a series of competitions designed to further the development of sound rural public health work and to stimulate improvement in public health services.*

Through the generosity of the W. K. Kellogg Foundation of Battle Creek, Michigan, it is possible for any full-time county or district health unit in Canada to participate in the Canadian Rural Health Conservation Contest free of cost or any financial obligation.<sup>1</sup> In addition, as many of the enrolled units as possible are visited by the Contest Field Director of the American Public Health Association who explains and interprets the Contest and is always glad to act as a consultant in connection with local public health problems if it is requested that he do so.<sup>2</sup>

Participation in the Contest stimulates local health work, provides a sound and effective means of health education, furnishes an inventory of present health practices, and points clearly to deficiencies, thereby stimulating needed improvements. The winning of an award, while naturally gratifying, is incidental to these accomplishments.

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A leaflet describing the requirements for enrolment and the advantages of participation will be sent on request to the Canadian Public Health Association, 105 Bond Street, Toronto.





# CANADIAN PUBLIC HEALTH JOURNAL

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## The Health Services of England and Wales\*

SIR ARTHUR MacNALTY, K.C.B., M.D., F.R.C.P., F.R.C.S., K.H.P.  
*Chief Medical Officer of the Ministry of Health, England*

WE are all sensible of the advantages of good health. Sir Thomas More says of health in his Utopia: "All the Utopians grant it to be a right great pleasure, and as you would say the foundation and ground of all pleasures; as which even alone is able to make the state and condition of life delectable and pleasant; and it being once taken away, there is no place left for any pleasure."†

In Canada you have long appreciated the value of national measures in maintaining public health and the Canadian Public Health Association has always been in the vanguard of progress to this end.

England has been the mother of organized public health work and legislation, but the parent may learn much from the child and I realize that in certain directions of public health you have advanced farther along the trail than we have.

But equally you may like to profit by our experience, so to-day I will endeavour to give you a picture of our health services in England and Wales.

### THE ADMINISTRATIVE ORGANIZATION OF PUBLIC HEALTH

The Ministry of Health is a central authority of comprehensive health services which is interlinked and intimately co-ordinated not only with local authorities and the multiple health bodies of Great Britain both official and voluntary, but with the health services of the whole world. Its high aims have been described as endeavouring "to bring every advance in medical science, every measure calculated to maintain health and to prevent disease to the service of the

\*Presented at the twenty-eighth annual meeting of the Canadian Public Health Association, held in conjunction with the twenty-fifth annual conference of the Ontario Health Officers Association, Toronto, June, 1939.

†*The Utopia of Sir Thomas More, The Second Boke—Ch. VI.*

people and to make health the birthright of every inhabitant of England and Wales." The Ministry is an advisory and co-ordinating authority, but does not directly administer the individual health services.

This latter function is performed by the local authorities of the country, of which the chief are the county councils and the county borough councils. In England and Wales there are administrative counties and county boroughs. Each county and county borough has a medical officer of health. Each county contains a certain number of urban and rural authorities. These are invested with public health duties principally in relation to environmental hygiene, e.g., water supplies, sewerage, disposal of refuse. They also deal with infectious disease and in some cases they are the maternal and child welfare authority. They each have a medical officer of health who is often also an assistant medical officer of the county authority. The work of urban and rural authorities has been more closely associated with the county health organization through the Local Government Act of 1929.

Within recent times the larger authorities—the counties and county boroughs—have been given much greater powers as guardians of the public health. They are responsible for the individual health services, the maternity and child welfare services (for the most part), the public assistance medical service, the tuberculosis and venereal disease services, the cancer service, the orthopaedic service, the hospital services (including to some extent pathological services).

The Ministry of Health has initiated these services by promoting legislation which makes these services a duty of the county councils and county borough councils, and by administering the Government grants in aid of them. The cost of the services is thus defrayed partly by the State and partly by local rates.

The Ministry lays down the lines on which these services are administered by the local authorities, approves the scheme of work, inspects the services through its medical officers and by health surveys sees that a proper standard of efficiency is maintained, having regard to the individual authority's resources and needs. But the actual work is done by the county council and the county borough council with the advice of their medical officers of health.

The National Health Insurance Service is administered centrally by the Ministry of Health and locally by Insurance Committees for each county and county borough.

The education services of England and Wales are administered centrally by the Board of Education, but the actual executive work is controlled by the education committees of the local authorities, for the most part committees of the county and county borough authorities. The Board of Education supervises national education, inspects the work and gives grants in aid. The relationship of the Board to the local education authorities is very much the same as the relation of the Ministry of Health to the local authorities. The Board of Education controls the school medical service and the local education authorities are in charge of the executive work.

Co-ordination with the health services is effected in two ways. Centrally, the Chief Medical Officer of the Ministry of Health is also Chief Medical Officer of the Board of Education and directs the medical staff of the Board. Peripherally, in all but a few instances the medical officer of health of the local authority is also the medical officer in administrative charge of the local school medical service.

Our tradition in England has been to develop and build up special health services independently and then, afterwards, to devise methods of co-ordination between them. The machinery for doing this is often cumbrous and complicated, but on the whole it works well.

Certain health services in England are still retained by other Government departments and branches. For instance, the Home Office is responsible for industrial hygiene and the control of health in factories. The Medical Research Council directs medical research in Great Britain. The Service departments have their own medical services. In various ways the health activities of all these bodies are closely co-ordinated with those of the Ministry of Health. This is also true of international health work. The Ministry is represented on the Office International d'Hygiène Publique and on the Health Committee of the League of Nations.

This then is briefly the organization of health services in England and Wales. It is a complex organization resting not so much on legislative enactments and bureaucratic control as on public-spirited activity and individual effort directed towards improvement of the national health. It is a system which is peculiarly suited to the democratic principles of our peoples. When one delves into the origins of these various health services one finds that they arose originally through voluntary effort in isolated areas. The State watched these experiments with interest, and when they were seen to be useful and important it adopted them, extended them and developed them in the interests of the whole community. In many cases, e.g., in the hospital services, the State continues to aid voluntary health activities and links them up with the work of local authorities. In the area of a county council or county borough the following is the form of organization which the health services are tending to assume: the County Medical Officer of Health as the Chief Administrative Medical Officer; the Assistant Medical Officers as assistants in administration, as clinicians and as resident medical officers in charge of institutions for the treatment of disease. The whole system is or should be linked up with the work of the general medical practitioners, and with voluntary hospitals and other forms of voluntary health endeavours. We may now consider these services in more detail.

#### MATERNITY AND CHILD WELFARE

In course of time, and by the evolutionary process just mentioned, the State has assumed responsibility for the health of the individual, not only from the cradle to the grave, but for the child before he is born.

There are threefold problems of maternity which have been the concern of the State for over twenty years.

(1) The potential fertility of married women is not yielding its due proportion of births. In other words, the nation is not, on the basis of its marriage rate, getting its due proportion of new lives. This is due, of course, in part to the standards enforced by a higher civilization and to other profound social conditions which lie outside the sphere of preventive medicine. It is not a feature of British civilization alone. But it is partly due to the hazard and uncertainty of child-birth and to the absence of facilities and preparation for it. Preventive medicine has a certain responsibility for the survival of the race.

(2) Secondly, there has been an appreciable death-rate associated with child-birth affecting both the mother and the child.

(3) Thirdly, there is the serious burden of married women's disablement and invalidism due to lack of knowledge and to insufficient or unskillful medical and midwifery attendance. "Much of the suffering entailed in maternity, much of the damage to the life and health of women and children would be got rid of if women married with some knowledge of what lay before them, and if they could obtain medical advice and supervision during the time of pregnancy and motherhood."

There has been steady and satisfactory progress in the provision of complete maternity schemes by local authorities. Such a scheme includes:

- (a) An adequate medical, midwifery and nursing service;
- (b) The satisfactory and sufficient nutrition of the mother;
- (c) Maternity centres providing ante-natal supervision;
- (d) Maternity home and hospital accommodation;
- (e) Domestic aid before, at the time of, and after child-birth;
- (f) Maternity benefit and other financial aid in certain cases; and
- (g) Early notification of births and still-births.

And it is desirable to emphasize also the provision of post-natal care and gynaecological clinics.

The Midwives Act of 1936 has set up a comprehensive service of salaried midwives by local authorities. Every expectant mother, whatever her financial position, is now able to secure the services of a trained midwife for her confinement, or if she has engaged a doctor, she is able to obtain a trained midwife to act as maternity nurse and to assist the doctor. Medical practitioners with skilled obstetric experience can be called by midwives in cases of difficulty or danger and the doctor's fee is paid by the local authority.

That these measures are exercising beneficial effect, together with the use of prontosil and other forms of chemotherapy in puerperal sepsis, is shown by the progressive decline in the maternal mortality rate per 1,000 live births during the past four years. In 1935 the rate was 4.11; in 1936 it was 3.80; in 1937 it was 3.26, and in 1938 it was 2.97 (provisional figure).

Extensive national work has been done in the reduction of infantile mortality. Associated with the maternity service just described are child welfare

centres throughout the country for consultations, home-visiting and the help and guidance of the mother, and for the supervision of infancy and childhood up to five years of age. By the end of 1937 there were 3,462 municipal and voluntary centres in England and Wales. Of the 477,903 children who attended at the English centres for the first time during the year 357,121 were under one year of age.

There are infant treatment centres for certain special ailments, but for the most part mothers are encouraged to take the child requiring treatment to a private practitioner. Health visitors visit the homes and encourage mothers to bring their children to the centres. Increasing accommodation is being provided in nursery schools and infant homes and for the sick child in hospitals.

More can be done in the development of maternity and child welfare work, but the benefits reaped by the nation from this State service are already remarkable. In 1900 the infant death rate for England and Wales was 156. In 1938 it had fallen to 53 (provisional figure).

#### THE SCHOOL MEDICAL SERVICE

When the child at five years old leaves the fostering care of the child welfare service his health becomes the care of the School Medical Service. This Service, established in 1907, is designed "to improve the health conditions both personal and in regard to environment, of the children of the nation," and to endeavour to secure "the physical improvement, and as a natural corollary, the mental and moral improvement of coming generations." It introduced school medical inspection, which has developed into treatment of school children, including medical, dental and orthopaedic clinics, the sanitation of school premises, systematic physical training, provision of milk and school meals, and special education for defective children, blind, crippled, mentally deficient, with the appointment of school doctors and of school nurses to visit the homes and to impress upon parents the importance of seeking medical advice for their children when required.

Time only permits of mere enumeration, but it is an impressive catalogue of great social progress. In successive reports of the Chief Medical Officer of the Board of Education it has been shown how medical inspection of school children has separated the impaired and defective children from those that are normal and healthy, how arrangements have been made for attending to the health of both sick and healthy children, how many morbid conditions have been reduced, how the general physique of school children has improved, and how, in addition to direct medical results, the teaching of hygiene and cleanliness, the physical training and the provision of school meals have reformed the physical condition of the children of this land beyond all comparison with the past. A health conscience has developed both in the children and in their parents.

#### NATIONAL HEALTH INSURANCE

Time marches on and the shades of the prison-house of life's work begin to close around the growing boy. The boy or girl leaves school and as they

enter into industrial life their health still remains a national care. They become insured under the National Health Insurance Act.

In this Act, which was passed in 1911, the State has provided a system of insurance against ill-health for a large section of the working population of England and Wales. Membership of the scheme is compulsory for all manual workers (with certain exceptions and exemptions) between the ages of 16 and 65, and for non-manual workers whose remuneration does not exceed £250 a year. Voluntary membership, with limited rights, is available in the case of insured workers whose incomes begin to exceed £250 a year. Insured workers and their employers pay weekly premiums of equal amount into the insurance fund, which is also subsidized by the State. Apart from the cash benefits for sickness, disablement, and maternity established by the Act, the institution of medical benefit was of primary importance in confirming the rôle of the medical practitioner as the first line of defence in combating disease. Over 16,000 medical practitioners in England and Wales are engaged in this health service. It provides a means by which the industrial workers of the country can have ready access to medical advice, not only, be it remembered, for actual ill-health, but for those who need guidance to keep their health. By thus facilitating the prevention of disease and its detection in its earliest stages, with the prospect of better response to treatment, the system is of the first importance to public health measures as a whole. The Act of 1911 was, in fact, entitled: "An Act to provide for insurance against loss of health and for the prevention and cure of sickness. . . ."

The National Health Insurance scheme also provides for the postgraduate instruction ("refresher courses") of insurance medical practitioners at the chief university centres, the fees and expenses, including the provision of a *locum tenens*, being defrayed out of national funds.

#### TUBERCULOSIS

The Tuberculosis Service was set up in 1912. It applies to the whole population and is conducted by county and county borough councils in England and by the Welsh National Memorial Association in conjunction with local authorities in Wales. The campaign against tuberculosis must not be regarded as an isolated subject. It is an integral part of public health and every measure calculated to promote the health and well-being of the community is a contribution towards it. The methods of attack must be comprehensive, various, and co-ordinated.

First of all there are all the general measures of public health, the Maternity and Child Welfare Services, and the School Medical Services. With these are co-ordinated the Tuberculosis Service itself with the County Council or County Borough Medical Officer as administrator, the tuberculosis officer, and the health-visiting and nursing staff and institutions for diagnosis, treatment and care. The Dispensary is the centre of the scheme. Linked with it are sanatoria, hospitals, institutions for surgical forms of tuberculosis, as part of a compreh-

hensive orthopaedic scheme; arrangements with general hospitals; technical training sanatoria for adolescents; industrial centres—residential and non-residential; the village settlement of which Papworth is the model and example; the care committee. Valuable educational work is rendered by the National Association for the Prevention of Tuberculosis.

At one time tuberculosis occupied first place among the principal epidemic or general diseases as a cause of mortality. It has fallen from that disgraceful pride of place and now ranks fifth among the principal certified causes of death at all ages.

In the decade 1911-20 the number of deaths each year from tuberculosis (all forms) was in the neighbourhood of 52,000. The grim expression of this figure as "a thousand funerals a week" is, fortunately, no longer true. The crude death rate (provisional) from all forms of the disease in 1938 was 635 per million population (England and Wales), the lowest death rate yet recorded. The number of deaths certified to be due to tuberculosis in 1937 was only 28,529, or nearly half the average annual figure in 1911-20. It is the most striking example known of reduction of the mortality of a disease in our own time.

#### VENEREAL DISEASES

Venereal diseases fall on the just as well as on the unjust and are the source of much invalidity, many deaths, and great individual and social unhappiness. The discoveries of Schaudinn, Wassermann, and Ehrlich in the early part of this century provided mankind with methods of diagnosis and effective treatment. Counties and county boroughs were made in 1916 responsible for the Venereal Diseases Health Service. All information from patients must be confidential. Councils can also arrange through the British Social Hygiene Council for lectures, films, etc., in order to educate the public in the grave dangers of these diseases. The work has met and is meeting with success, but it is still important to impress upon patients the necessity of continuing their treatment until the medical officer of the treatment centre pronounces them free from disease.

#### PUBLIC ASSISTANCE

Prior to the passing of the Local Government Act of 1929 a large number of Poor Law hospitals had been provided in England and Wales by Boards of Guardians.

When the functions of these Boards were transferred to local authorities they became responsible for these hospitals. It is the policy of the Ministry of Health to encourage, whenever possible, the appropriation of Poor Law hospitals for public health purposes, and any new hospitals are provided under the local authorities' public health powers and not as one of their public assistance services. The sick are cared for as the sick and not as the poor. The provision of domiciliary medical relief (Public Assistance medical service) is for the less well-off section of the community who do not come under the National Health Insurance Scheme. The organization is based on the division of the county or

county borough into medical relief districts; the District Medical Officers are most commonly general practitioners, one for each district, acting on a part-time basis. In some cases these officers are whole-time employees of the council, though in such cases they frequently have other duties, such as the medical superintendence of one of the council's institutions. A number of authorities have adopted an entirely different system—the "free choice" or "panel" system, that is, the service is provided by a panel of local medical practitioners remunerated on a basis of payment for persons treated, or at risk. The essential difference between this and the other two systems is that the doctors on the panel are not officers of the local authority, but are only in contractual relationship with the authority, and the patient has a "free choice" of doctor.

The Public Assistance medical services, except that of domiciliary relief, are of declining importance, as they are being replaced by wider services designed to meet the needs of the community as a whole and not restricted to the destitute. The provision of domiciliary medical relief still plays a large part in the provision of a general medical service for those persons who cannot normally afford a doctor and who, for various reasons, are not covered by insurance schemes.

#### HOSPITAL SERVICES

The earliest hospitals were provided by the ecclesiastical authorities, and they were a matter of slow growth. Later the famous hospitals of St. Bartholomew and St. Thomas were founded, and in the eighteenth century many of the other great London hospitals were built. To-day a large county area contains general and special hospitals of various sizes and purposes, general, county, and cottage hospitals, municipal hospitals provided by county councils or county borough councils, Poor Law infirmaries, maternity hospitals, isolation hospitals for infectious diseases, hospitals and sanatoria for tuberculosis, hospitals and asylums for mental disease, lying-in institutions, hospitals or homes for women and children, and hospitals for special diseases—venereal, skin, eye, ear and throat, orthopaedic, etc.

Hospital services have grown in a manner characteristic of our nation; first largely as charitable institutions under voluntary management; afterwards continued in the same way, but followed by official provision of hospitals on an even larger scale, the two systems working side by side. For many years the voluntary general hospitals have been unorganized in relation to one another, and have been provided with little heed to the hospital needs of the country as a whole. The Local Government Act of 1929 greatly increased the hospital resources of county and county borough councils and gave opportunities for co-operation between municipal and voluntary hospitals in a joint war against disease. Certain authorities, notably the London County Council, have made full use of their powers under the Act, with the ready support of the voluntary hospitals and the local medical profession; others are yet backward in this respect. Many rural areas are still without adequate hospital provision and full facilities for modern medical treatment and diagnosis. At the same time there is an increased demand on the part of the public for hospital treatment. Gradually

the service is becoming better organized and equipped, and order is beginning to emerge out of a haphazard provision.

To the Ministry of Health has been assigned the responsibility for dealing with questions relating to the provision of hospitals in England and Wales for the treatment of air-raid casualties in the event of hostilities. Space does not permit of description of this important and far-reaching work. Suffice it to say that it should prove of permanent value in increasing hospital provision in the country and in promoting full co-operation between municipal and voluntary hospitals.

#### CANCER SERVICE

At the present time more than 66,000 deaths are attributed annually to cancer, which now occupies the second place in the list of fatal diseases in England and Wales. The amount of human suffering involved in this annual toll of death, remembering the frequency with which the later stages of the disease are accompanied by pain, must be incalculable. Yet much of the disease in accessible sites is now known to be eradicable if diagnosed in its early stage by surgery, radium or deep X-ray therapy, or a combination of these measures.

This year Parliament has passed the Cancer Act. The object of this Act is to provide modern facilities for the diagnosis and treatment of cancer throughout Great Britain. The organization of cancer schemes is entrusted to local authorities and subject to approval of the Minister of Health, who has appointed a special medical committee of experts in cancer as a sub-committee of his Medical Advisory Committee to advise him on technical matters. But the special centres and consulting centres will be established as a rule at general hospitals, will be staffed by a team of experts and will not be labelled as cancer centres or cancer clinics.

#### CONCLUSION

There are many other activities in our national scheme for the promotion of health, which I cannot describe to you to-day.

I have attempted to show you the wide ambit of the health authorities in the old country and how many forms of work—medical, social and economic—are assembled with a view to the prevention of disease and the maintenance of physical and mental efficiency. Some may think our aims too high: that we have out-speeded natural progress and tried to do too much with comparatively limited resources. We have certainly hitched the wagon of preventive medicine to the star of hope, yet no cause is worth the battle if its aspirations are not high. Wolfe said in his last dispatch to Pitt—"The affairs of Great Britain I know require the most vigorous measures." This is equally applicable in the campaign for national health.

It is not forgotten that much remains to be done. Nevertheless, through learning what has been already achieved we can go forward with renewed confidence, for every year medical research forges new weapons and places them in the clinician's hand for the fight against disease.

# The Place of the Public Health Nurse in a Community Program\*

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A REVIEW of programs from a variety of sources indicates that this topic has been chosen for general meetings of public health workers perhaps more often than any other. One unacquainted with the professional habits of our guild would certainly conclude either that we have no clear idea as to the place which the nurse should occupy in a community program and that we are persistently searching for the answer, or, perhaps, that there is an important difference of opinion as to the place of the nurse.

It is probable, however, that neither guess would be right, for health workers do not lack a clear idea of the place of the nurse, nor is there to be found any important difference of opinion. It seems likely that the topic appeals to those who make up programs, rediscovering this glorious title which lends itself so well as a framework for any and all speakers, most of whom cannot be expected to have anything startling or revolutionary to say about nurses in a community. It is a safe topic. It is not controversial. It fits admirably the need of the program makers for a spot where a visitor from afar can be placed.

So sure am I of the reasons for choosing this topic that I have enquired from many of those long inured to programs of health workers. They all admit having heard many and various speakers on this identical topic. It therefore behooves a speaker from afar who is given this program spot where so many have been heard before to say what he sincerely thinks in the most cogent way he can and to sit down. Many speakers more eloquent than he will have the same task in years to come.

I shall begin by saying very sincerely that I am deeply indebted to Canadian public health nurses for my own insight into what the place of the public health nurse should be in the community program. If you wish I can name for you at least five public health nurses from Canada who have taught me a good part of what I think I know about public health nursing. My professional life began in rather cloistered academic circles and I had been out on my career for several years before I met up with the problems of administering public health nursing service. Fortunately, I was in good hands and the nurses who worked with me were very patient while I learned some simple but practical things that doctors do not usually learn either in medical school, in the hospital or in a school of public health.

\*Presented at a joint session of the Public Health Nursing Section and the Section of Vital Statistics and Epidemiology during the twenty-eighth annual meeting of the Canadian Public Health Association, Toronto, June 1939.

This reminds me of the suggestion made recently by a well trained public health nurse in the field who begged that doctors in our schools of public health be made to understand the vital necessity of good public health nursing records. She had met supposedly well trained men who did not appreciate what she was doing in record keeping and who resisted her attempts to enlighten them. My counsel to all public health nurses is that they be very patient with us medical officers of health so that we may each understand the purposes of the other and mutually co-operate for the good of the service as well as for the good of the community.

I came across an interesting sidelight on the place of the nurse in the health program during the studies of a committee of the American Public Health Association which was charged with preparing an appraisal form to evaluate the performance of each part of the local health program. The work of the public health engineer, of the laboratory worker, of the nutritionist, the child hygienist, the statistician and the epidemiologist was not so hard to evaluate. But just try to prepare a schedule, if you will, which will reveal the service rendered by the public health nurse! It cannot be done excepting as one studies all parts of the enterprise, for the public health nurse is the most important agency through which infant hygiene, maternal hygiene, school hygiene, public health education, and a host of other activities we might name are really brought to fruition. Public health nursing belongs in another category. It can be appraised only in terms of its vital part in these tasks to which nursing contributes so substantially. So the official appraisal forms which have become a world-wide standard do not have a section evaluating public health nursing as a unit, but only as each specialty uses these technics to achieve its particular ends. It is a revealing study to understand how the measure of public health nursing service is the best measure we have of the health status of the community.

It has been suggested that I include observations on the evaluation of the work of the public health nurse. If anyone is interested in this aspect I suggest that he consult the new Appraisal Form for Local Health Work published by the American Public Health Association in 1938. It is the best attempt so far made in nursing evaluation.

As an example of the relationships of public health nursing, let me recount a one day's experience. I was in a county department of health one Saturday morning not so long ago when the health officer received a telephone report from the county laboratory indicating that an unusual condition had appeared in the water samples from a factory undergoing the periodic examination required by this particular state routine. Within fifteen minutes that health officer had assembled in his office the laboratory director, the public health engineer, the epidemiologist and the director of the public health nursing service. In the conference it was brought out that this factory received water from about 15 wells driven on property adjacent to the plant and that previous samples over a long period of time had been uniformly satisfactory. This sample showed a positive presumptive test for coliform organisms after 24 hours' incubation.

Some change in the water surely had taken place. A long distance call reached the plant manager, who was surprised at this news and who reported no apparent illness among his employees and some doubt in his mind about the seriousness of the situation. But the health officer was persistent and told the manager that, since his water supply for the plant was cross-connected with the village supply for mutual fire protection, the matter was of importance both to the plant and to the village and that he would insist that some protective steps be taken immediately. Rather reluctantly the manager agreed to call his headquarters in a distant city for permission to install an emergency chlorinator, but confessed that he did not know when they could place it in operation, since they were about to close the plant for the week-end that Saturday noon and because the following Monday was a holiday. His engineer had gone fishing and it would obviously be the middle of the week before he could comply. The health officer, however, ordered an emergency chlorinator, dispatched the engineer from the health department to install it and sent the epidemiologist with orders to the local nurses from the director of nursing to canvass that village for signs of illness that might be connected with the polluted water. With excellent co-ordination this machine got to work and by the middle of the afternoon the health officer received word from the village that the chlorinator had been installed, that the factory water was undoubtedly then safe and it was also evident from the canvass made by the nurses under the epidemiologist that there was no illness to be found either in the factory personnel or in the community. The health officer accordingly wired his state health commissioner with much relief, reporting the situation and received in reply a prompt and approving response, appreciating the fine example of team work that had taken place on that Saturday. That is the sort of team work that we should have widely. Try to measure the service of the public health nurse in that community without involving the other important services which, at their best, are integrated with public health nursing for a complete result, even activities like laboratory disease control and sanitary engineering.

Having noted the place of the public health nurse in the appraisal form as well as in a variety of co-operative ventures, let us look at her part in the community health budget. Here again her importance is apparent, for any review of current practice will show that the public health nursing portion of the total budget is very large. Professor Hiscock's new edition of "Community Health Organization" proposes that the public health nursing item in the budget for a good city health department should represent about 48 per cent. of the total. Other examples may readily be cited to show that the best administrators are agreed that public health nursing is in many ways the most important single item in the whole program.

Unfortunately this conspicuous size of the budget for public health nursing at once suggests to some of those who would economize on the investment in health that here is the obvious place to begin the economy. As a matter of fact I should say from first hand experience that there is no more effective way of

paralyzing health service than by laying a heavy hand on these nursing resources. Reduction here amounts to a partial paralysis over the entire program. It cannot be offset by additional protection elsewhere in the work of the department. As in a fine watch the driving force all passes through a main driving gear into the train of gears, so in a well ordered health department the nurse transmits the driving energy which energizes all the other parts of the enterprise and lets it keep synchronized step.

While we are speaking of the dynamic function of the public health nurse in the community health program and of the large part which nursing bears in the total expense, let me speak of a practical consideration which I learned from an excellent Canadian public health nurse. I began a tour of duty as an epidemiologist with this very able nursing administrator in the department. I was so enthusiastic about my own interests that I could see no reason why she could not detach her entire force of nurses from their assigned tasks and transfer them to work on the problems which occupied my attention—intensive vaccination campaigns in the presence of smallpox, community-wide diphtheria immunizations, special demonstrations of prenatal care, delivery service and similar activities to prevent maternal deaths, each of which was important in itself. She taught me why a staff could not readily be detached for special assignments without disrupting the proper balance of the program. It was illuminating to me to see with what tenacity she held to her determination to render a full and balanced service, but with as great flexibility as this first responsibility would permit.

In a similar way I learned in a rural area with generalized service how a public health nurse feels the effects of special demands from those working in the department who wish her to do intensive work in tuberculosis control, in syphilis control, in infant hygiene, in school health work, in public health education and in the cultivation of a strong public appreciation of her service. I learned how the nurse responds to the pressures that are put on her by those specialists who depend on her service in order to make progress each in his own line. I became much more appreciative of the consideration which administrators should show nurses in their efforts to achieve all that these rivals want. But I also learned how even in this framework it is possible with intelligence and patience to render a generalized service and still do the specialized job in a creditable way.

I must mention here how this Canadian nurse taught me also to choose nurses who have a strong human quality. Now of course we want well trained nurses and there must be sound human stuff on which to build. "The wrong person trained is still the wrong person" and in the end will bring grief if not disaster to the agency. Technical training, of course, is essential—but technical training *plus*—plus stability, common sense, tact and good judgment, a level-headed ability to carry the load and, as Sir William Osler said, having that ability to burn one's own smoke.

I have come to believe that training built on an unsound foundation is

mainly wasted. There is, I believe, as yet no adequate selection of those nurses who go into public health nursing. I believe it to be the high duty of those in charge of admission to the schools of public health nursing to eliminate at that point those who lack a fundamentally sound and stable character. Carefully selected candidates will readily find their places in the community after the course. The hope of the future lies in the hands of these admitting officers.

This topic to which I have been assigned shares popularity on programs with one which relates to the conflict between public and private nursing agencies. Possibly this is more true on my side of the international line because of the rapid growth of official agencies in the last few years, though I think it is probably not unfamiliar to you. There is the perennial argument as to which has the higher professional standards, the public or the private agency. Recently I have watched a situation resolve itself which in essence represents this conflict. A long established private agency watched with somewhat jaundiced eye the steady growth of the official group in its area. The time came when the private nursing group had to secure another director and the question was debated somewhat hotly whether it should choose this occasion to retire from the field, leaving the public nursing service to go its own way, or to continue a rather competitive sort of service. The solution was at once so sensible and so revealing that I commend it to other localities where this problem may be acute. The voluntary agency declared itself as determined to stand as it had stood for more than 20 years for the best standards in public health nursing. It chose to have a survey made of public health needs in its area under the direction of a professor of public health who was known for his fairness in similar conflicts but who was uncommitted to either side. The private agency then chose the best director they could find and insisted that this new director be able to qualify in training and experience with the state civil service for a position with the official group in her area. They have gone forward while the survey is being made with determined resolution to stand for the best of nursing service whatever the recommendations of the consultant may be. Their attitude has been so sane and constructive that the medical officer of health has promised in advance to give his whole-hearted co-operation in the direction indicated by the survey and, if it seems desirable, he will accept the director and her staff as members of his staff in order to effectuate a new arrangement. Incidentally this experience has made the voluntary agency realize that the standards for public nursing service in this area had risen much more rapidly than they had realized and that each was seeking for excellent grades of service. The place of the public health nurse in that community, you will agree, is secure.

I was struck recently in an interview with a group of 38 women from England, members of the Women Public Health Officers' Association of Great Britain, who had visited several Canadian cities and had seen a bit of the health work in the United States. They were emphatic about one thing. We on this side of the Atlantic, they said, have a much better degree of co-operation between official and voluntary health agencies than they have in England. It

was a surprise to me to realize that we were better off in this commodity of co-operation than I had supposed. I think that we still can improve our co-operation but I pause to register gratification that we are at least not the most backward people in teamwork.

Perhaps the informality of our custom of getting all sorts of health workers together for mutual exchange and stimulation has led to this co-operative tendency. Sometimes I have seen these groups which start formally and perhaps stiffly transformed by skillful leadership into something most productive, even to the point of interfusing the entire atmosphere of a community enterprise with teamwork. That is creative leadership of the highest order. In such a community the sheer magic of the nurses' art has a chance to be at its very best.

What have we really been saying about the true place of the public health nurse in the community program? At its best a health program is a partnership which public health nursing shares with a dozen other specialties. This partnership recognizes the interests of each specialty and the professional and personal standing of the workers. Wherever the community is the centre of interest it is simple for each of those who share in this partnership with the public health nurse to recognize the essential field of public health nursing. Wherever something besides the community interest stands in the centre, there it is indeed difficult to place public health nursing—difficult when it is personal vanity or overgrown ego, or personal aggrandizement that stands in the centre. There is no place in this partnership for professional jealousies—nor for personal animosities which so often wither the best intentions.

So, in a word, I propose that we agree on this partnership idea and that we set ourselves resolutely to achieve a high measure for our daily work. One excellent place to begin, it seems to me, is in the training of new personnel. The nurse, the medical officer, the laboratory worker, the nutritionist, the tuberculosis specialist—all of them have so much in common that it would be well to make the instruction common to all grades in some respects. Let these groups meet each other, let them share in the discussions. Let the tutelage be so guided as to bring out thoughtful discussion of those areas likely to be in conflict. The result can be to lay a sound foundation for future understanding. You in the Dominion have unusually good opportunities to accomplish this joint training because the institutions for professional training are more closely related to each other than in the states. So we shall look to Canada for leadership in this area as we have looked so often—and we shall not be disappointed.

I leave with you, then, these convictions about the place of public health nursing in the community. The responsibility which we professional workers have in public health is a trust. It is also a partnership and the future belongs to those who are determined against all odds to get a co-operative understanding between nursing and other parts of the health enterprise. As we look back with appreciation for the achievements of the past, we may look forward with confidence to that which the future holds. Our hats are off to the past; our coats are off to the future!

# Full-Time Health Districts in New Brunswick\*

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THE Province of New Brunswick has an area of 27,000 square miles and a population of 445,000. It is divided into fifteen counties, the population of which varies from 7,500 to 65,000. There are three cities, with populations of 10,000, 23,000 and 50,000, and eighteen towns with populations ranging from 1,100 to 8,000. Four counties have no towns or incorporated villages within their boundaries. A very large part of the centre and northern part of the province is crown land not settled. The east coast, the southern half of the province, and the river counties on the western side are the most thickly populated portions.

In 1918 when the present Department of Health was inaugurated, the province was divided into three health districts each in charge of a full-time district medical health officer. None of these officers had any special training in public health, other than possibly some years' experience as chairman of a local or county board of health.

In 1919 a system of medical inspection of schools was established covering the whole province. In this there was but one full-time medical inspector (Saint John City), the other city, town and rural schools being inspected by local physicians appointed and paid by the sub-district or county boards of health, and working on a part-time basis. There were about eighty such part-time inspectors and their salaries ranged from \$100 to \$800 a year, the total expense to the counties being about \$26,000.

In view of the protests of the municipal councils both as to cost and inadequacy of the services rendered in many instances, the Department in 1922 established, with the financial assistance of the Rockefeller Foundation, a full-time medical inspection of all schools. Six full-time physicians were employed to carry on the work.

In 1924 a full-time tuberculosis diagnostician was appointed to serve the whole province, and in 1928 a second diagnostician was added to this service.

In 1927 the number of district medical health officers was increased to four, and without other material changes this plan was carried out until 1936.

During this period the nature of the duties, or at least the proportion of time devoted to certain duties, changed considerably. Whereas in the beginning most of their efforts were directed to the control of epidemic diseases such as

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smallpox, diphtheria, typhoid and scarlet fever, much less time was now required for these, smallpox having been eliminated and typhoid and diphtheria having become much more sporadic in character.

The tuberculosis diagnostic service quickly became very popular both with the profession and with the public, and it soon was evident that this service must be greatly extended.

Under the system of medical inspection of schools one-half of our staff was engaged in this one field of endeavour and if complete coverage of all schools was to be done in a year, these officials had no time to devote to other phases of health work, though they had to their credit the abolition of smallpox through systematic vaccination of all school children before or at the beginning of school life. We have now, I believe, the largest percentage of the population of any province protected against smallpox and diphtheria.

It soon became apparent that the division of public health services into three more or less separate divisions, with sharply defined responsibilities of the various officers, was not conducive to economy of effort or time. The areas served by officers were entirely too large, so that an excessive amount of time was spent in travelling. Moreover, it was not reasonable to have three different officers dealing with three different phases of health work in the same areas, for at times it happened that all three would be in one county.

Since the sub-district or county boards of health did not at any time contribute toward the salary or expenses of the district medical health officers or tuberculosis diagnosticians and at that time were not contributing toward the salaries of the medical inspectors of schools, and since there were no local medical health officers in the province, it was not necessary to provide new legislation nor to consult the local health boards in regard to realignment of the health districts nor of reapportionment of the duties of the health officers.

Since 1932 we have, through the assistance of the Rockefeller Foundation, been training our health officers, so that at present nine of our eleven medical officers have diplomas in public health. We have also recruited into our service young men who have been trained in tuberculosis diagnosis, and purpose making possible such training for other members of our staff in the near future.

In 1936 we divided one of our large districts so that we then had five health districts each in charge of a trained health officer who was also tuberculosis diagnostician. The former medical inspectors of schools still carried on that function but in addition acted as assistant medical health officers.

In the fall of 1937, having occasion to make some replacements through retirements, we decided to further sub-divide large districts. We now have ten health districts, in all but two of which the health officers in charge have had the advantages of special training while the other two have had a long period of practical experience in public health.

Until the time arrives when all our district health officers will have had special training both in public health and in tuberculosis it will be necessary to make some adjustments in a few districts in order to give a complete service.

This is particularly true of the tuberculosis diagnostic service. For the present four officers are called upon to give such service in counties adjoining their own districts, but in such cases these officers have been given assistance in the medical inspection of schools in their own districts by their colleagues from nearby districts.

Our ultimate goal is to have each of our health districts of such a size that the entire public health work will be in the hands of one competent medical health officer, he being responsible for the health program in his district. This would seem to be the most logical plan in a province such as ours. It will be conducive to a higher and a broader standard of work; it will be more economical in every way; and it places the health officer in a position where he is in closer touch with each and every health need in his district, where he can better evaluate his problems and work to the best advantage in obtaining the assistance to bring about those changes which will be of the greatest benefit.

As already indicated, there are still difficulties to be met and overcome in completing this program. Perhaps one of the most difficult problems arises from the geographical arrangement of our counties, which form the units of our sub-health districts, and from which the latter obtain the funds for their sub-district boards of health. Of our present ten health districts, five consist of single counties. Two of these have a population of 25,000 to 30,000 with a school enrollment of 5,000 to 5,500. Two others have a population of about 35,000 with school enrollment of 6,500 to 7,000. The third has a population of 45,000 with school enrollment of 9,000. There are four districts each composed of two counties. Two of these districts are almost entirely rural, with populations of 32,000 and 38,000 and school enrollments of 6,500 and 8,000, while two others have populations of 70,000 and 87,000 with school enrollments of 15,000 and 16,000. These two latter have large urban populations, three-sevenths of one and two-thirds of the other being urban. The other health district comprises two counties and one city (Fredericton) with a combined population of 42,000 and school enrollment of 8,000.

The per caput cost to the province for the Health Department exclusive of all hospitalization is 25.5 cents while the per caput health cost of the health districts themselves totals 13 cents. This latter varies from 4 cents to 9.5 cents for the health districts which are mainly rural, while those with considerable urban populations range from 11.4 to 31.4 cents.

The various sub-district or county boards of health provide the services of secretaries, sanitary and other inspectors, local registrars of vital statistics and in some instances nursing and other services, especially in the cities.

There are as yet no public health nursing services available for an entire health district, but the cities and several of the towns have nursing services either under the board of health or some voluntary organization, many of the latter being supervised and subsidized by the Department of Health.

At present we are trying to organize a public health nursing service which will provide one or more nurses for duty in each health district and as part of

the staff of the health officer. When this is brought about we hope to revise our medical inspection of schools in such a way that the medical officer will be relieved of much routine work that could well be done by a nurse and thus be able to give more attention to more worth-while efforts.

To summarize—the province is now divided into ten health districts, each in charge of a full-time health officer, who is an official of the Department of Health and whose services are not a charge upon the municipality. Medical inspection of schools and tuberculosis diagnostic services are included in the field of work of these health officers. The services of secretaries, sanitary inspectors and sub-deputy registrars of vital statistics (full-time in the cities and part-time in rural areas), are all furnished from Board of Health funds, but officials are under the direction of the medical health officer.

Nursing services and trained sanitary inspectors (full-time) for each health district are the next development which we hope to bring about, thus giving the province a complete system of full-time health districts, each district being self-contained with the medical health officer responsible for the complete health program of his district.

# Heart Disease Mortality

## The Public Health Problem in Ontario

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THE fact that a recent survey (1) of all the recorded deaths in those 40 years of age and over, in Ontario, over a 25-year period, failed to establish satisfactorily or to refute the reality of an increase in heart disease mortality in that time does not mean that there is not any public health problem in heart disease. The problem is not to be measured, however, by the 7000 deaths charged to heart disease in any one year, as many of these are *timely* deaths and of no concern to public health. As everyone knows, it is only the *untimely* deaths which are of concern to public health, these and those timely deaths in later life which indicate sources or foci of infection requiring attention. The timely deaths are the physically necessary ending to life that has lived its reasonable span and prevention or postponement of those deaths is in no way a public health responsibility, or a significant possibility of the present. While generalizations in regard to any arbitrary age differentiating between timeliness and untimeliness are of uncertain value and not applicable to the individual, it must be remembered that there has not been any evident increase in the life span of man, and, of more significance, that, even today, more than half of all our mortality is supplied by those under 70 years of age. There is some justification, therefore, for still regarding three score and ten as marking the reasonable period of life for which public health must be concerned. The exclusion of the deaths of those who have passed three score and ten years excludes the physically necessary, inevitable, timely deaths, and some others, and leaves the remainder, those under 70 years, as a distinct public health problem.

### RHEUMATIC HEART DISEASE

The physicians who supply all the death certificates, without charge, would probably like to know first the extent of the problem of mortality due to rheumatic heart disease. But that information is not available in vital statistics in which the deaths are tabulated in accord with the International Classification of Causes of Death.<sup>1</sup> Even the number of deaths which have been diagnosed and certified under this fairly established entity of rheumatic heart disease, fairly well defined clinically and pathologically and, by both its nature and extent, forming a very significant public health problem, cannot be learned from

<sup>1</sup>It has been arranged at the Revision of the International Classification of Causes of Death, Paris 1938, that in 1940 the classification will be changed so as to indicate the deaths certified under this heading.

the official records of mortality. Neither the clinician's nor the pathologist's diagnosis, under this terminology, is carried into the official vital statistics.

However, as the vast majority of cardiac deaths under forty years are due to rheumatic infection, some indication of part of the problem may be obtained by considering this volume of mortality with necessary reservations and adjustments or corrections. This volume includes, probably, some deaths which should be tabulated under congenital malformation, some deaths due to infections other than rheumatic, some, too, of the so-called degenerative type, and some deaths which have been erroneously diagnosed as due to cardiac disease, but the numbers involved in these inclusions in the 0-39 age group are far outweighed by those due to rheumatic infection. Some of the deaths in this age group really due to rheumatic infection have undoubtedly been diagnosed, certified and tabulated under other categories such as apoplexy, pneumonia and influenza, septicaemia, nephritis, etc. The numbers so lost, however, from the recorded cardiac mortality are *probably* small and of little significance. The selection of any arbitrary age as indicative of the limits of rheumatic infection excludes an unknown number of such deaths which occur over the stipulated age. The fact that of 643 deaths charged to acute rheumatic fever in 1933-37 in Ontario, 254 were in the age group of 40 years and over and of 30 charged to chorea 19 were in this age group, suggests that a large part of rheumatic cardiac mortality may be similarly distributed but it does not warrant estimating that part or volume proportionately. Any estimate of the extension of the rheumatic cardiac mortality problem into the older age groups must come from clinical and pathological investigation rather than from any fanciful figuring of uncertain vital statistics. According to a recent estimate, the number of deaths from rheumatic cardiac infection in those of 40 and over may be greater than the number in those under 40 years. One correction that can be made is the inclusion, with mental reservations of its accuracy, of the deaths charged to rheumatic fever and chorea. The concentration of recorded chorea<sup>2</sup> mortality in the older age groups at once raises some doubt of the relationship of these deaths to those charged to rheumatic fever and cardiac disease of earlier life. As the number of deaths charged to chorea is very small it makes little difference whether or not they are included.

As shown in table I there is an average per annum of approximately 400 deaths under 40 years of age charged to rheumatic fever, chorea and heart disease, about one quarter of which is charged to rheumatic fever. This volume of mortality is in itself sufficiently great to be of real significance from a public health standpoint. When consideration is given to the fact that the larger part of this mortality is contributed by the adolescent and young adult life the problem becomes one of much more importance. The mortality is greater than that charged<sup>3</sup> to measles, whooping cough, scarlet fever and diphtheria together, and

<sup>2</sup>Huntingdon's chorea is supposed to be tabulated under Other Diseases of the Nervous System.

<sup>3</sup>It will be realized that there may be a wide discrepancy between "charged to" and "actually due to", especially in the case of measles and whooping cough, as some of the deaths in reality due to these infections are probably charged to pneumonia, mastoiditis, etc.

is contributed by an age group vastly more important economically. The number is much greater than the number under 40 years charged to appendicitis and is approximately equal to the number so charged throughout the whole of life (table II). In 1937 rheumatic fever, chorea and heart disease were charged

TABLE I

ACUTE RHEUMATIC FEVER, CHOREA AND HEART DISEASE,  
RECORDED MORTALITY BY SEX AND AGE, 0-39 YEARS,  
ONTARIO, 1933-37

Age	Acute Rheumatic Fever		Chorea		Heart Disease		Total		Total Males and Females	Average Annual Rate per 100,000
	Males	Females	Males	Females	Males	Females	Males	Females		
Under 1	1	1	1	1	18	10	19	11	30	
2	2	1	1	1	3	5	5	6	11	
3	7	2	2	1	8	3	15	5	20	
4	2	5	5	1	6	2	8	7	15	
5-9	22	26	26	3	33	24	55	53	108	6.3
10-14	32	44	44	1	51	42	84	88	172	10.2
15-19	36	33	33	1	78	91	114	125	239	14.4
20-24	21	24	24	1	97	105	118	129	247	16.0
25-29	22	28	28	1	99	146	121	175	296	21.3
30-34	18	21	21	1	187	138	206	159	365	27.6
35-39	13	28	28	1	283	219	296	248	544	42.2
0-39 Totals..	176	213	3	8	863	785	1042	1006	2048	16.8

TABLE II

ACUTE RHEUMATIC FEVER, CHOREA AND HEART DISEASE RECORDED MORTALITY  
COMPARED WITH OTHER MORTALITIES  
ONTARIO, 1933-37

Cause of Death (Recorded)	Total Deaths 1933-1937		Average Deaths per annum		Average Rate per annum	
	0-39	40+	0-39	40+	0-39	40+
Acute Rheumatic Fever, Chorea and Heart Disease.....	2048	?	410	?	16.8	?
Measles.....	236	9	47	2	1.9	0.2
Scarlet Fever.....	274	13	55	3	2.3	0.3
Diphtheria.....	143	14	29	3	1.2	0.3
Whooping Cough.....	653	4	131	1	5.4	0.1
Appendicitis.....	1186	826	237	165	9.7	14.3
Tuberculosis.....	3828	2919	766	584	31.3	50.7

*The figures are not considered sufficiently reliable to justify comparison.*

in the 15-19 age group with 46 or 8.9 per cent. of 518 deaths, with a rate of 13.3 per 100,000 and were in fourth place as a cause of death (table III). As shown in the table, this mortality was in sixth place in the 5-9 age group, in fifth place in the 10-14 and fourth in the 20-39 age group. Up to the fortieth year it accounted for somewhat more than half the mortality charged to tuberculosis under 40 years of age. Even without considering the rheumatic cardiac deaths

subsequent to 40 years, therefore, the problem presented by these 400 per annum is a very significant one.

The age specific rates have been calculated with a great deal of hesitation as it is very uncertain that the data are of a quality to justify such calculation or comparison. Just as in the mortality charged to pneumonia, anaemia, syphilis, other cardiac diseases and in fact most causes, neither comparability nor continuity can be established by the use of the International Classification of Causes of Death or any other system of bookkeeping, unless diagnosis and certification are comparable. Neither does the quality of the data justify analysis by sex. Although the approximate agreement of numbers in the two sexes suggests the absence of any marked sex-selective factor, no such conclusion is warranted as the apparent agreement may be due to inclusion in one sex of more of other types of heart disease, *e.g.*, more of the degenerative type in the male than in the female.

TABLE III  
ACUTE RHEUMATIC FEVER, CHOREA AND HEART DISEASE,  
ONTARIO, 1937

Age	Total Deaths	Acute Rheumatic Fever, Heart Disease and Chorea	% of Total Deaths	Rate per 100,000	Place as cause of death
5-9	426	20	4.7	5.6	Sixth
10-14	393	29	7.4	8.4	Fifth
15-19	518	46	8.9	13.3	Fourth
20-39	3321	292	8.8	25.6	Fourth

As has been pointed out by Dr. Oille (2), we have no record of the actual number of cases, but we do know that practically every death has followed a long term, months and even years, of incapacity and invalidism requiring prolonged and intensive medical, nursing and often hospital care, at an age that should have been the most productive period of life.

Neither have we much factual knowledge of the nature of the causative agent, of the influence of environment and nutrition on the incidence or progress of the disease, of the relative importance of seed and soil, or of the *possible sources of infection and means of spread*. Perhaps in this changing world the solution or attempt at solution of these phases of the problem may be accepted as a public health responsibility.

#### THE PROBLEM IN THOSE 40 YEARS AND OVER

It is as impossible to get an accurate conception of the extent of the cardiac mortality problem from 40 to 69 years of age from the official records as it is to get the extent of the rheumatic cardiac disease. Not only is it impossible, from mortality records, to separate the latter type of disease from the degenerative type but, owing to the difficulties in diagnosis that increase as age advances, it is impossible to form any accurate estimate of the number of deaths in reality attributable to cardiac disease. These deaths cannot be strictly separated from those due to vascular disease, nephritis and other hypertensive disease, etc., and

their segregation in vital statistics is largely artificial and of little or no significance. They are only part of the larger problem of the breaking up or wearing out of life before its time. For many deaths in this group, the term heart disease signifies, in reality, merely the terminal or preterminal condition in which the signs or symptoms referable to the heart possibly predominated; the final tabulation, necessarily confined to one cause, cannot indicate the many associated or general conditions on which the specific cause certified is largely dependent. In some, it indicates heart failure rather than heart disease but the latter term is acceptable and the former is not, so, dressed in different letters, the much vaunted *bête noire* becomes in a trice the white-haired child. In some instances, too, the term is merely a convenient but satisfying certification. In 13,823 recorded deaths in the 40-69 age group in Ontario in 1937, there were only 22 charged to ill-defined or unknown causes. The science or art of medicine would not claim any such high degree of perfection in diagnosis. Deaths in which a satisfactory diagnosis could not be made have undoubtedly been pigeon-holed in other categories and it is impossible to say how many have been charged to heart disease.

The influence of changing diagnosis and the rapidity with which an artificial change can exert its influence on and change mortality rates are shown in table IV.

In table V data of the 40 to 69 age group are summarized. Undoubtedly

TABLE IV  
RECORDED CARDIAC MORTALITY  
(40-69 YEARS OF AGE)  
Ontario, 1933-1937

Years	Angina		Cor. Throm. & Emb.		Other Cardiac		Total Cardiac	
	Deaths	Rate per 100,000	Deaths	Rate per 100,000	Deaths	Rate per 100,000	Deaths	Rate per 100,000
1933.....	336	33.8	805	81.0	1583	159	2724	274
1934.....	291	28.8	1091	108	1653	163	3035	300
1935.....	271	26.4	1191	116	1451	142	2913	284
1936.....	261	25.4	1405	136	1447	141	3113	302
1937.....	274	26.5	1620	156	1204	116	3098	299

TABLE V  
CARDIO-VASCULAR-RENAL  
Recorded Mortality—Ontario 1937

Age Group	40-49	50-59	60-69
Total deaths.....	2763	4429	6631
C.V.R. deaths.....	742	1662	3055
Per cent of all deaths.....	26.8	37.5	46.1
Place as cause of death.....	First	First	First
Rate per 100,000 population.....	158	488	1361

fallacious to some extent as these figures are, still, they serve, when taken with due regard for their short-comings, to give some indication though no accurate estimate of the problem of mortality presented by this heterogenous group of infectious and so-called degenerative disease: the cardio-vascular-renal group. Charged with 158 deaths in every 100,000 population in the 40-49 age group, with 27 per cent. of all deaths in that group and standing in first place as a cause of death; charged with a rate of 488 per 100,000 in the 50-59 age group, with 37 per cent. of all deaths in that group and again in first place as a cause of death; charged with a rate of 1361 per 100,000 in those 60-69, with nearly half of all deaths in that age group and again in first place as a cause of death, its importance, in spite of the poor quality of the data, cannot be questioned. And we know as little, factually, of the basic causes of the so-called degenerative diseases, of this breaking-up of life before it has reached its fair span, as we do of the earlier cardiac mortality.

#### SUMMARY

Owing to the vagaries of mortality bookkeeping in addition to the difficulties of diagnosis and certification, a satisfactory estimate of the extent of mortality from rheumatic cardiac disease or other cardiac disease cannot be made from official vital statistics.

The age distribution, however, allows of an arbitrary separation, from the standpoint of public health responsibility, of timely and untimely deaths. It is not proposed, however, that the arbitrary age limit of timeliness, three score and ten, should be or is applicable to the individual.

When the deaths under 40 charged to rheumatic fever, cardiac disease and chorea are added together, the sum of over 400 per annum, contributed largely by adolescent and young adult life, constitutes in itself an important public health problem, greater than that charged to scarlet fever, measles, whooping cough and diphtheria together, greater than that charged to appendicitis, and more than one half of that charged to tuberculosis in the first 40 years of life. The questionable quality of the data is indicated.

As so-called degenerative cardiac disease is only part of a larger problem of premature breaking-up of life from which the former cannot be separated in reality, the mortality charged to cardio-vascular-renal conditions, from 40 to 69, is considered, *with necessary reservations*, as a public health problem. Fallacies and limitations of the data are briefly discussed. This mortality was first as a recorded cause of death in each 10 year period of the 40 to 69 age group, accounting for approximately 40 per cent. of all deaths in that age group in 1937.

Of the actual extent of the morbidity associated with this mortality, we have no record; of the basic causes or of their control, we have little factual knowledge.

#### REFERENCES

1. Ross, M. A. and McKinnon, N. E., *Canad. Pub. Health J.*, 1939, **30**: 171 and 239.
2. Oille, J. A., *Canad. Pub. Health J.*, 1936, **27**: 261.

# The Modern Treatment of Scabies\*

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**A**MONG the school population scabies has always been a very difficult disease both in regard to diagnosis and control. The fact that it may stimulate other papular eruptions may account for so many early cases escaping diagnosis. The number of cases which occur among school children may be explained because school pupils are in such intimate contact with each other.

In the occurrence of scabies the history is usually quite characteristic. The patient complains of itching of the skin, usually commencing on hands and forearms. After going to bed, or into a warm place, the itching is intensified. Before long other members of the family are infected and commence scratching.

On examination a fine papular rash is seen, most often appearing first in the webs of the fingers. Sometimes children are found with the whole body covered with scratch marks due to the irritation. These scratches may become infected and the rash may appear pustular. Sometimes there is a dermatitis due to overactive home treatment with sulphur. Occasionally impetigo is implanted in the scratch marks.

Scabies, while usually spread by direct contact, may pass from one person to another by clothing, bed clothes or other articles used by someone harboring the itch-mite. If not discovered early, or if inadequately treated, the disease may continue indefinitely. Usually several members of the family are infested. Persons who wash the hands frequently may show few of the characteristic papules between the fingers. In early cases, about 75 per cent. have the webs of the fingers involved.

It has been said "scabies is the easiest as well as the hardest dermatologic disease to diagnose." The presence of the itch-mite and its burrows in the skin are pathognomonic, but the itch-mite is often difficult to recognize without the aid of a magnifying glass. Because of this, the school medical officer should always use a hand glass on any suspicious skin case. No child seems to be exempt from this trouble although the child who neglects to wash his hands is more likely to have this disease than the one who keeps the skin clean.

## TREATMENT

Many types of treatment for scabies have been recommended but most have not been very effective. For many years sulphur has been used in the form of ointment or lotion. This type of treatment took a considerable time, and many of the patients were not cured, because if treatment was stopped the disease

\*Presented at the twenty-fifth annual meeting of the Ontario Health Officers Association, held in conjunction with the twenty-eighth annual meeting of the Canadian Public Health Association, Toronto, June, 1939.

reappeared. Later Danish ointment was recommended. This seemed to reduce the time lost from school, but in many cases the treatment was far from satisfactory. Both sulphur and the Danish ointments were difficult to apply properly, and left the underclothing and bed linen in a filthy state. In many cases a dermatitis, due to the drugs, occurred. From our own experience over a period of years when sulphur ointment alone was used the average length of time the patient lost from school was three weeks. With Danish ointment the time lost from school was ten days. With so many of these children, however, the disease reappeared shortly after the ointment was discontinued and they had returned to school.

Early in 1937 Kissmeyer in an article in *The Lancet* advised a treatment of scabies with benzyl benzoate lotion. It was pointed out that "the treatment of this disease could be ambulatory, inexpensive and would not irritate the already scratched skin." This treatment has been used in the Kommunehospital, Copenhagen, since 1932. It consists of equal parts of soft soap (B.P. 1932); isopropyl alcohol  $(CH_3)_2CHOH$ ; and benzyl benzoate ( $C_6H_5COOCH_2C_6H_5$ ). This treatment appealed to us because in our schools at that time there appeared to be more than the average number of cases of scabies with a great deal of lost time from school. Since then our Department has used exclusively this treatment for scabies. The results have been very good; comparatively few cases have complained of any irritation and the number of repeat cases has been almost negligible. The lost time from school has been an average of three days only.

Whenever a case which is suggestive of itch is discovered in school the child is excluded and sent to the school medical officer or the medical officer of health for an examination. If a diagnosis of scabies is made, the school is notified, the child is sent home and all children in the home are excluded from school. That afternoon the district health nurse calls at the home and supervises the treatment of the case, and contacts. The patient first receives a warm bath (about 100° Fahrenheit) for ten minutes during which he rubs himself thoroughly with soft soap and pays special attention to the affected parts. Then while wet the body is brushed all over with the solution for five minutes from the neck downwards using an ordinary firm bristle paint brush. Special attention is paid to the parts of the body affected. The lotion is allowed to dry, then the painting is continued for a further five minutes. The body is gently dried with a towel, and the patient *puts on the clothing worn before the treatment was started and also uses the same bed clothing that night.*

Twenty-four hours later a cleansing bath is taken, clean clothes are put on and the bed linen changed. The underclothing and soiled bed linen are washed out in as hot water as possible or boiled, if this is possible. All other bed clothing is hung outside in the open air, or if woolen underwear has been worn a hot iron is run over these with special attention being paid to the seams.

Not only do we treat the patient himself, but all other children in the family are also painted regardless of whether or not they show any sign of the itch. The parents are also advised to take the treatment. In this way we have prac-

tically wiped out this disease among our school population as it is most unusual now to find a case of this troublesome disease. During the first six months of 1939 only twelve families have been treated in a school population of 5,569.

The contacts are readmitted to school by the health nurse, but the case must have a certificate of recovery from the Medical Officer of Health before returning to school.

The new treatment has many advantages over the older types of treatment. It is much cleaner to use, and all the treatment is done at one time. The length of lost time from school now averages three days only instead of three weeks. Of some four hundred cases not more than twelve have had the treatment repeated, and many of those did not follow the instructions carefully. A comparatively few cases have complained of the solution stinging the skin for some time after the lotion was used. This is to be expected when one considers the state of the skin after a great deal of scratching. In no case have we had any dermatitis following this treatment.

When the lotion was first suggested we prepared it ourselves, but it was found that one of the pharmaceutical houses had a similar formula, and we have found it more economical to purchase it. It was found that when the mixture was left standing the soap separated from the other ingredients and unless care was taken the children complained of irritation of the skin. The original mixture was not clear and this was found to be due to a certain amount of water so that we now advise an anhydrous 20 per cent. soap to be used instead of the original B.P. soap. The new solution is quite clear and just as efficacious, and we have had no complaint in regard to irritation of the skin. It would appear that we now have an excellent treatment for scabies. It is inexpensive, in practically every case it will cure the disease in a few days in one treatment, it is one with which any Department of Health may expect uniformly good results.

Written instructions should be given to the parents in each case, and it is very desirable that a public health nurse supervise the treatments in the home, not only of the case itself but of all the other children.

## EDITORIAL SECTION

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### RESOLUTIONS ADOPTED AT THE ANNUAL MEETING

THE resolutions adopted at the annual meeting of the Canadian Public Health Association, held in Toronto June 12th to 14th, deal with some of the most important problems relating to the health and welfare of the people of Canada.

The subject of health insurance has been brought prominently before the medical profession and the public alike during the past few years. The Association is fully cognisant of the difficulties and problems that are presented in the consideration of any plan for the provision of a system of national health insurance in Canada. At the annual meeting the Association endorsed the principle of national health insurance whereby all persons who cannot make provision for themselves and their families would receive adequate medical care. The Association believes that the success of such a plan will be dependent on the integration of the practice of preventive medicine into such service.

It was recognized also, by resolution, that a fundamental need in Canada is the provision of full-time health services, particularly in rural and small urban centres. In every province there are many areas where the need for public health work is most urgent but the municipalities concerned are unable to do more than meet the requirements of the Public Health Act by appointing a medical officer of health on a part-time basis. A survey of the expenditures for health by the various provinces show that these expenditures have mounted greatly during the past few years and that the increases are due largely to hospital expenditures, including sanatorium treatment of tuberculosis patients and care of the mentally ill. Not more than 10 per cent. of the total provincial expenditures for health, which now amount to more than twenty million dollars, is expended for preventive services. The resolution of the Association urging the adoption of the principle of grants-in-aid to the provinces by the federal government for preventive services expresses the conviction of all public health leaders that the further provision of full-time health services, particularly in the needy rural areas, cannot be undertaken by the provinces and municipalities without federal assistance.

In another resolution the Association expressed to the federal government its appreciation of the establishing of the Canadian Council on Nutrition. It is hoped that the funds of the Council will permit of the publication of instruction

concerning diets and that this information may be made available through appropriate channels to all families having a minimum income or receiving relief allowances. Practical application may thus be quickly be made of the studies.

The Association again reaffirmed its belief that pasteurization of all milk offered for sale is the only practicable method of assuring the safety of milk supplies. Ontario is the first province to require compulsory pasteurization. The Association expressed its hearty endorsement of this progressive action on the part of the provincial government of Ontario and urged that the advantages of compulsory pasteurization again be presented to other provincial governments.

To assure to all citizens that the term "milk" means whole milk, unadulterated within the meaning of the Food and Drugs Act of Canada, the Department of Pensions and National Health is insisting that various preparations of milk containing flavouring substances, sugar, milk powder, etc., must not be labelled "milk". The Association commended the Department for establishing this policy and urged that a suitable definition of "milk" be adopted.

The public has been subjected to intensive advertising of vitamin preparations. The Association recorded its appreciation of the recent action of the Department of Pensions and National Health in providing for the testing of the potency of such preparations, utilizing the standards which have been established for certain vitamins.

The amendments to the Food and Drugs Act also made provision for the control of the preparation and sale of cosmetics from the standpoint of danger to health. It is recognized that Canada has one of the most effective Food and Drugs Acts of any country and that the Act is being enforced most effectively.

The extent of the services rendered by health departments is largely dependent upon the employment of properly qualified personnel. The Canadian Public Health Association during the past five years has made an important contribution in establishing standards for the qualification of sanitary inspectors. It is significant that the major recommendation of the Committee dealt with increasing the standard of preliminary education required of sanitary inspectors to four years of high-school work or its equivalent in secondary-school education. The Association by resolution urged municipal and provincial authorities to appoint only certified sanitary inspectors for full-time appointments and, whenever possible, for part-time appointments also.

The subject of housing was also considered. The Association endorsed the provisions of the National Housing Act and urged that research work now being conducted by the Dominion Housing Commission as relating to low-cost housing projects be made public as quickly and as effectively as possible. The Association expressed its desire to assist in every way the national housing conference which is planned for 1940. Through its own Committee on Housing the Canadian Public Health Association has made a valuable contribution in preparing model provincial housing regulations. Much remains to be done and the Association is ready to co-operate in every way in the forward movement for low-cost housing.

# REPORT OF THE ASSOCIATION'S WORK DURING 1938-39

## (Part I)

### REPORT OF THE HONORARY SECRETARY

AS previously implied, the annual report of the Secretary of the Association loses each year some of its significance. While lacking in statutory confirmation this office has gradually been shorn of some of its responsibilities. The original position was Secretary. Then with the expansion of program and effort, the title became hyphenated and in order to distinguish between section secretaries and secretaries of standing committees the incumbent of the office was designated by the title "General Secretary". For some two years now I have occupied the position of Honorary Secretary. This implies that there is an executive secretary who devotes much if not all of his time to the interests of the Association. While the objective has been constantly before your officers, its fulfillment has been possible only during the last few months. To those of us who have during the last fifteen or twenty years seen this will-o'-the-wisp periodically take shape and then as regularly lose its identity among the clouds of doubt and frugality which have on occasion obscured the future of the organization, this is the most eventful conference since that at which the Association was born.

A year ago at the annual meeting of Council plans were laid before you for your consideration, which called for the appointment of a full-time executive officer. It was the hope of your officers that funds might be secured which would make such an appointment possible. Shortly after the annual meeting an assurance of further support was secured from the Canadian Life Insurance Officers Association and an effort was made to secure a physician with training in public health who might devote his time to forwarding the interests of the Association. On two occasions the hopes of your Executive Committee were frustrated and it was decided ultimately to give up for the time being the thought of an executive officer with medical training and to ensure for the Association the full-time services of Mr. Robert L. Randall as executive assistant. Mr. Randall has for seven years given most generously of his time as Editorial Assistant and the experience that he has gained during that time makes him extremely valuable as a nucleus upon which it is hoped that the ultimate objectives of the society may be built. It is hoped that the support so generously given by the Canadian Life Insurance Officers Association will be extended again this year.

The Association's twenty-seventh annual meeting, held in Halifax in conjunction with that of the Nova Scotia Health Officers Association, was most successful. Despite the absence of many members on account of distance, the sessions were well attended and the discussions enthusiastic and productive.

*Presented at the twenty-eighth annual meeting of the Canadian Public Health Association,  
Toronto, June 12-14, 1939.*

The members of the local committee on arrangements, under the guiding hand of the president, Dr. P. S. Campbell, deserve hearty congratulations for their work in making possible such an excellent meeting. The generous support of the meeting by the Government of the Province of Nova Scotia was also greatly appreciated.

When the Association assumed responsibility for the publication of the Journal in 1928, the membership numbered 1500. At the close of 1938, 2800 names were on the membership records. Gratifying as this increase is, the Executive Committee is conscious that the increases in the past few years have been relatively small. If the Association is to go forward, it is essential that it should have a strong membership committee and that an effort be made to enlist the support of many public health workers who at present are not members. Although we have the privilege of having practically every medical health officer in Canada as members, there are many public health nurses, laboratory workers, sanitary engineers, sanitary inspectors, and others who are not members of the Association.

The activities of the various standing committees are reported in detail under the appropriate heading elsewhere in this report.

The annual Christmas meeting of the Laboratory Section, held in Toronto on December 19th to 21st, was again an unqualified success if attendance and interest are acceptable criteria. The Section of Vital Statistics and Epidemiology held a special conference in Ottawa on June 16th with representatives of the Department of Pensions and National Health and the Dominion Bureau of Statistics to discuss the report of the Committee on the Registration and Certification of Stillbirths and a further report on the new Canadian death certificate. The merits of so-called confidential death certification were also discussed at this meeting.

The response from sanitary inspectors throughout the country has been most heartening to those members of your executive who are charged with the direction of this aspect of the Association's program. It is reasonable to anticipate that within the next two or three years the qualifications now required of those seeking the designation C.S.I.(C.) will be demanded of all full-time sanitary officers in all of the larger municipalities and many of the provinces.

The success which was associated with the first Canadian Rural Health Conservation Contest last year was duplicated this year. Practically all the county health units that competed in 1937 enrolled again in 1938 and the number of schedules completed was almost as great as last year. For the second successive year the first award was won by the St. Jean-Iberville-Laprairie-Napierville Health Unit.

During the year the Association suffered a great loss in the deaths of several members whose names are intimately associated with the development of the work of the Association. In the passing of Dr. T. A. Starkey the Association lost a member who had the honour of serving as the Association's first president. Another former President, Dr. J. D. Pagé, also passed on recently. In the death of Mr. W. R. Tracey our Association suffered an

irreparable loss in leadership in the Section of Vital Statistics, and public health in Canada one of its most faithful workers. In the public health nursing field the passing of Miss Laura A. Gamble and Miss Huilota Dykeman has left gaps of which the Association and public health nursing in general are very conscious. The report of the Committee on Archives records the names of a number of other members whose contributions to public health in their own communities and in the Association will be remembered.

During 1938 the Association paid tribute to the public health achievements of Dr. S. Boucher of the City of Montreal, Dr. Alphonse Lessard, formerly Director of the Provincial Bureau of Health of Quebec, and Dr. H. E. Young, Provincial Health Officer of British Columbia, by awarding them honorary life membership in the Association.

It would be remiss on my part if I were to conclude this report without a formal expression of appreciation to the Canadian Life Insurance Officers Association for their substantial increase in the grant to this organization. The increase from the former grant of \$2000 to the present one of \$3500 makes much of the success of the Association possible. In thanking the officers of the Canadian Public Health Association for their continued tolerance of the many shortcomings of their secretary, I should like to pay special reference to last year's President, Dr. Peter S. Campbell, and to Dr. R. D. Defries who is indefatigable in his efforts on behalf of the Association.

J. T. PHAIR, *Honorary Secretary.*

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#### REPORT OF THE HONORARY TREASURER

DURING 1938 the Executive Committee gave earnest consideration to the development of the plans for the appointment of a physician with training in public health who would serve as executive secretary and field director. On being advised that the Canadian Life Insurance Officers Association had approved of a grant of \$3500 for 1938-39, the Executive Committee decided that the Association should proceed at once to obtain the services of such a physician. The need for an assistant secretary was recognized to be urgent but it was felt that if only one appointment could be made, a medical secretary was to be preferred as voluntary secretarial services might continue to be given temporarily. The maximum salary available from the Association's present budget proved, however, insufficient to interest a physician with suitable training and experience. It was not until the latter part of December that the Executive Committee felt that they had exhausted every effort to obtain a suitable officer. They stated that it would be useless to look further unless the Association could provide a more adequate salary and offer an appointment for a period of at least three years. It was decided therefore to proceed with the appointment of an assistant secretary. In making this appointment it was realized that the Association receives from the Honorary Secretary, Dr. J. T. Phair, such a measure of direction that as long as his services are available the situation can be met. Although the appointment

of an assistant secretary has relieved Dr. Phair of a certain measure of responsibility in the conduct of the Association's work, it is realized that the Association must move to its objective of the appointment of a medical secretary on a full-time basis as soon as possible in order that the field program of the Association may be advanced. It is not possible for the Association to realize the extent of its indebtedness to Dr. Phair for the many years of direction which he has given to its policies and to the conduct of its work.

The income of the Association, though increasing gradually, has shown year by year a steady increase. In 1938 the revenue from membership fees and advertising in the Journal amounted to \$7131.80 in contrast with \$6195.94 in 1937—an increase of \$935.86. The Canadian Life Insurance Officers Association generously granted to the Association \$3500.00 for the year ending April 1939. Of this amount \$2750.00 was received during our fiscal year. It is the objective of the Executive Committee that the revenue of the Association be increased as rapidly as possible so that the appointment of a medical secretary may be proceeded with. To this end consideration will be given by the Executive Council to a modest increase in the membership fees, to be effective for the year 1940.

As mentioned above, the decision to appoint an assistant secretary and to defer the appointment of a medical secretary was not made until final word had been received from the several physicians who had considered in turn the appointment offered by the Association. As a result the funds that were set aside for the appointment remained unexpended at the close of our fiscal year. The statement of assets and liabilities of the Association is very satisfactory, showing a surplus of \$5836.33. It must be remembered, however, that the assets include not only the cash amount of \$3176.26 and accounts receivable of \$1131.29 but also fixed assets of \$1000.00 involved in the purchase of the Canadian Public Health Journal in 1928 and the investment of \$1000.00 in bonds which was set aside when the Association assumed responsibility for the publication of the Journal.

One of the most important undertakings of the Association is the publication of the Canadian Public Health Journal. As this matter is dealt with by the Editorial Board, it is only necessary to say that through the strictest economy the publication costs have been maintained at a minimum. It is most gratifying that in spite of the increased number of copies printed during the year, including the "Milk Number" in June, no significant increase was recorded in the costs of publication.

The expenditures for the annual meeting of the Association, held in Halifax, N.S., June 19th to 21st, were also the minimum. The meeting was an outstanding success. The thanks of the Association have been officially tendered to the Government of the Province of Nova Scotia for the generous grant of \$500 made to the Association to assist in defraying the expenses of the meeting. This action of the provincial government was an expression of their interest and their confidence in the work of the Association and will, I trust, be followed by other provincial governments on the occasion of our annual meetings. In past years various provincial governments have aided the Association in its annual meeting in many ways. A grant, however,

permits the Association to bring outstanding speakers and to provide public and other meetings which increase greatly the effectiveness and value of the meeting. The action of the Government of Nova Scotia was not a precedent, as the Dominion Government made a grant towards the cost of the Ottawa meeting in 1937.

Excellent progress has been made by the Association in providing facilities for the certification of sanitary inspectors in Canada. The registration and examination fee is \$15.00. This amount was sufficient to meet the expenditures of the Association in connection with the conduct of the examinations, leaving a surplus at the end of the year but not sufficient to provide any honorarium to the Provincial Examiners who gave much time to the conduct of the oral and field examinations. The expenses for printing were a minimum during 1938 but will be considerably higher this year in view of the publication of a new edition of the Manual, a new edition of the syllabus and regulations, etc.

It is desirable that I should make reference to the present financial responsibilities of the Association. A budget of approximately \$12,000.00 is required for the year 1939. This amount provides for the assistant secretary and an office assistant; the maintenance of the work of the office, including the publication of the Journal (printing and distribution charges); the conduct of the annual meeting, the Christmas meeting of the Laboratory Section, and a conference of the Section of Vital Statistics and Epidemiology; and the work of various committees. The income from membership fees and advertising in the Journal can be estimated at \$7300.00, leaving a deficit of \$4700.00. This indicates the urgency of the need of increasing the revenue of the Association in every way possible; namely, by increased membership fees, a larger income from advertising in the Journal, and assistance from the provincial and federal authorities in the conduct of special studies and the holding of the annual meeting. It is gratifying to know that the Canadian Life Insurance Officers Association has again favourably considered the work of the Association and purpose to recommend making a grant again this year. At no time in the Association's history is the need greater for a united effort on the part of every member of the Association to place the work on a substantial financial basis.

It will be noted that the Association is not called upon to provide rental of office space and telephone services. We are indebted to the Director of the School of Hygiene, University of Toronto, for providing accommodation for the editorial and other work of the Association; and to the Health League of Canada for office space at the headquarters of the League, 105 Bond Street. These contributions represent a contribution to the Association considerably in excess of \$500.00 a year.

In closing this report I wish to express my appreciation of the services rendered by Mr. William Nichols in the conduct of the work of the treasurer's office.

The audited statements for the year 1938 are appended.

A. L. MCKAY, *Honorary Treasurer.*

## CANADIAN PUBLIC HEALTH ASSOCIATION

## BALANCE SHEET

As at 31st December, 1938

*Assets*

Cash on hand.....	\$ 439.18
Cash in Bank.....	2,737.08
Accounts Receivable—Advertising.....	\$ 336.80
Subscriptions.....	603.92
Reprints.....	146.07
Miscellaneous.....	44.50
Total.....	1,131.29
Less: Reserve for Doubtful Accounts.....	35.00
Deposit with Postmaster.....	15.00
Province of Ontario Bonds—4½%, 1949 Par Value \$1,000.00—Cost.....	1,012.50
Canadian Public Health Journal.....	1,000.00
Office Equipment.....	\$ 76.35
Less: Reserve for Depreciation.....	29.90
Total.....	46.45
	1,046.45
	\$6,346.50

*Liabilities*

Accounts Payable.....	\$ 102.60
Prepaid Subscriptions.....	359.06
Accrued Commissions and Expenses.....	48.51
	\$ 510.17

*Surplus:*

Balance as at 31st December, 1937.....	\$3,536.13
Add: Adjustment re 1937.....	\$ 94.99
Excess of Revenue over Expenditure for the year (see Schedule "A").....	2,205.21
	2,300.20
	5,836.33
	\$6,346.50

Referred to in our report of this date attached.

GRAY, TESKEY & HILL,  
*Chartered Accountants.*

Toronto: 3rd February, 1939.

CANADIAN PUBLIC HEALTH ASSOCIATION  
REVENUE AND EXPENDITURE ACCOUNT

FOR THE YEAR ENDED 31ST DECEMBER, 1938

Schedule "A"

*Revenue*

Advertising.....	\$3,900.25
Subscriptions.....	3,231.55
Certification of Sanitary Inspectors.....	\$1,296.10
Less: Expenses.....	832.73
	463.37
Net revenue from sale of reprints.....	83.55
Canadian Life Insurance Officers—Grant.....	2,750.00
Bond Interest.....	45.00
Interest on Post Office Deposit.....	.15
	\$10,473.87

*Expenditure*

Printing.....	\$4,681.18
Distribution.....	386.29
Commissions.....	787.74
Advertising and Promotion.....	78.04
Honoraria.....	460.50
Salaries.....	600.00
Convention and Meeting Expenses.....	\$ 890.94
<i>Less: Grant from Nova Scotia.....</i>	<i>\$500.00</i>
Sundry Revenue.....	374.14
	874.14
Stationery and Office Supplies.....	16.80
Postage and Telegraph.....	216.54
Laboratory Section Expenses.....	295.36
<i>Less: Revenue.....</i>	<i>\$ 553.38</i>
	283.50
Vital Statistics Section Net Expenses.....	269.88
Public Health Nursing Section Expenses.....	96.82
Net Miscellaneous Expenses.....	5.07
Bad Debts.....	119.76
Reserve for Depreciation.....	119.76
Discounts allowed and Bank Exchange.....	15.27
	119.65
	\$ 8,268.66

Excess of Revenue over Expenditure for the year, transferred to Surplus Account.. \$ 2,205.21

## REPORT OF THE EDITORIAL BOARD

THE CANADIAN PUBLIC HEALTH JOURNAL has completed twenty-nine volumes. These volumes record the public health progress of three decades in Canada. The JOURNAL stands as a tribute to the small group of original members of the Canadian Public Health Association who made possible its continued publication during the difficult years of the war, and particularly to Dr Gordon Bates, who, supported by these members, continued its publication. It is gratifying to them and to the Association that the Journal has continued to develop and that today requests are being received from libraries in different parts of the world for the complete series of volumes.

With the co-operation of the provincial departments of health, the Association is privileged to bring, through the Journal, to every health officer in Canada and to other public health workers the newer knowledge in the various fields. The Journal is unique in this opportunity and the Editorial Board is conscious of its responsibilities. It is fully cognisant also of the limitations of the Journal. Within the compass of the present Journal it is difficult to provide for the many papers on highly technical subjects that are offered and at the same time to find space for review articles on the everyday responsibilities of public health workers. The number of papers offered in specialized fields exceeds the number of papers with a clinical interest or a practical application. It is true, however, that the Journal may best serve its purpose by drawing attention to the problems of various special fields: facts that today are being established in the laboratory or hospital are tomorrow used in everyday practice.

The problem of publishing scientific papers is steadily becoming more

acute. Practically all scientific journals in the special fields are made possible by a substantial subscription fee or through endowments. Clinical medical journals have less difficulty because of the volume of advertising that is obtained. Public health journals, on the other hand, receive a very limited advertising support and generally depend on subscription fees. It is indeed an achievement that the Canadian Public Health Association has been able to publish the Journal and to accord membership in the Association for a fee of two dollars. The consideration which will be given by the Executive Committee to increasing the membership fee indicates that this fact is fully recognised by the membership of the Association. Any increase will necessarily be a very modest one in order that the Journal may continue to be available to every public health worker in Canada.

During 1938 the volume of 614 pages contained eighty leading articles and abstracts of twenty-nine papers presented at the Christmas meeting of the Laboratory Section. As a result of the interest shown in the special Milk Numbers published in 1932 and 1934, a third number devoted to this subject was published in June. Five hundred additional copies of the issue were printed but the requests were so numerous that the supply was exhausted a few weeks after publication and the number was reprinted as one of the Association's Reprint Series. The issue has had a wide circulation in the United States as well as in Canada and has received favourable comment in many journals and newspapers. It is planned to issue a special Milk Number once every two years.

One of the most appreciated features of the Journal is the quarterly Letter from Great Britain. Since 1933, Dr. George F. Buchan, one of the leading public health authorities of Great Britain and medical officer of the Willesden Urban District Council, Kilburn, London, has generously found time for the preparation of this letter. The members of the Board and the readers of the Journal are deeply indebted to Dr. Buchan.

The Board has regretted the delay in the publication in book form of the series of articles on the development of public health in Canada. The first of these, an introductory article by Dr. J. J. Heagerty, was published in 1934 and was followed in the next two years by articles outlining the history of public health in the various provinces. After an unavoidable delay the final article of the series was received for publication in the May, 1939, number. It is planned to publish the collected articles, which have been brought up to date, in July of this year, thus making available a valuable review of public health progress in Canada.

The circulation again showed a modest increase, from an average of 3,125 copies a month during 1937 to 3,174 copies in 1938. At the present time 3,300 copies are being printed monthly. This increase, while modest, is satisfactory in that it represents what may be termed current additions to the mailing list, since with the limited office assistance available it was not possible during 1938 to undertake a membership-subscription campaign. It is hoped during the coming months to increase the number of subscribers by conducting a systematic campaign. In 1938, an average of 2,169 copies was mailed each month.

to physicians, 255 copies to public health nurses, 217 copies to other public health workers, 175 copies to the leading scientific libraries in Canada, the U.S.A., and Europe, 60 copies to the leading hospitals in Canada, and 208 copies to companies, institutions, newspapers, exchange journals, etc. The Editorial Board is continuing to make the Journal available to undergraduate medical students and nurses in training in the Canadian universities. While the rate of one dollar for two years' subscription represents only a third of the printing and distribution charges, the Board believes that it is a desirable part of the Association's work to make the Journal available as a supplement to the courses of instruction in hygiene and preventive medicine.

The advertising revenue increased from \$3056.50 in 1937 to \$3900.25 in 1938. This increase of almost \$900.00 was due chiefly to the publication of the Milk Number with its enlarged advertising section. Major V. W. Dyas, the Journal's advertising representative, has continued to present the merits of the Journal to advertisers in Canada. As was mentioned previously, public health journals generally receive limited advertising support and it is encouraging that modest increases in the revenue from advertising have been recorded in the past several years.

The publishing costs, including distribution charges and advertising commissions, amounted to \$5855.21 as compared with \$5600.36 in 1937, the small increase being accounted for by the increased number of copies printed each month and the publication of the Milk Number which contained eighty pages instead of the usual sixty-four.

Again the members of the Board desire to express their appreciation of the action of the provincial departments of health in continuing to include in the subscription list of the Journal the medical health officers and certain other members of their personnel.

R. D. DEFRIES, *Chairman.*

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#### REPORT OF THE COMMITTEE ON THE CANADIAN RURAL HEALTH CONSERVATION CONTEST

THE Canadian Rural Health Conservation Contest, which is conducted by the Canadian Public Health Association in co-operation with the American Public Health Association and with the financial assistance of the W. K. Kellogg Foundation, is open to all counties served by a full-time local health organization. Thirty of the forty-odd county health units eligible for participation completed the requirements for entry in the 1938 Contest, filing detailed schedules outlining their programs. A number of units, organized fairly recently, did not compete since it is obvious that several years must elapse before a local organization can consider itself sufficiently well developed to make a satisfactory showing in the contest. Moreover, in a number of units the work has been developed to meet the most urgent needs, leaving a part of the program to be developed later. Although such units cannot receive

awards, the value of the contest in reviewing the accomplishments and needs should be evident and it is hoped that every full-time health unit will participate in the 1939 contest so that they may benefit from the Grading Committee's analysis of their program.

Awards are made not necessarily to the healthiest communities, but rather on the effectiveness with which a community is meeting its health problems. Each county is appraised by a Grading Committee composed of a group of carefully selected health experts on the measures that it takes: to provide and safeguard its water supply; to furnish adequate and safe sewerage disposal; to reduce infant and maternal deaths; to combat tuberculosis and syphilis; to protect its citizens against other communicable diseases; to insure healthy children; to protect and safeguard its milk and other foods; to promote effective co-operation with its physicians and dentists in furnishing necessary services to all those who need them; to enlarge and improve its lay-understanding of ways and means of preventing sickness and death and of maintaining good health.

The winning unit in the 1938 contest was the St. Jean-Iberville-Laprairie-Napierville County Health Unit, with headquarters at St. Jean, Quebec. The medical officer of the unit is Dr. J. A. Lapierre, D.P.H. Awards of merit were given to the following units:

Terrebonne County Health Unit, St. Jerome, Quebec. Dr. F. Leclerc, D.P.H., medical officer.

Rimouski County Health Unit, Rimouski, Quebec. Dr. J. E. Germain, medical officer.

Argenteuil County Health Unit, Lachute, Quebec. Dr. E. Lalande, D.P.H., medical officer.

St. James-St. Vital Health District, St. James, Manitoba. Dr. I. M. Cleghorn, D.P.H., medical officer.

St. Hyacinthe-Rouville County Health Unit, St. Hyacinthe, Quebec. Dr. G. Chcquette, D.P.H., medical officer.

Temiscouata-Rivière du Loup County Health Unit, Rivière du Loup, Quebec. Dr. S. Sirois, D.P.H., medical officer.

Laviolette County Health Unit, Grand'Mère, Quebec. Dr. E. Frenette, D.P.H., medical officer.

Nicolet County Health Unit, Nicolet, Quebec. Dr. Jean Paquin, D.P.H., medical officer.

Matane County Health Unit, Matane, Quebec. Dr. J. R. Larose, D.P.H., medical officer.

The health unit serving the counties of St. Jean, Iberville, Laprairie and Napierville has the distinction of winning for the second time the major award, having obtained first place in the 1937 contest—the first to be held in Canada. It is indeed a tribute to the excellence of its work that it has maintained the premier place among the full-time county health units. Evidence of the increasing effectiveness of the work of full-time county health units in Canada is found in the fact that awards of merit, justified by the excellence of the health programs undertaken, were awarded to nine units in the 1938 contest, in contrast with six in 1937. Three units have received the awards for a second time, namely, the Terrebonne and Nicolet County Health Units in Quebec and the St. James-St. Vital Health District in Manitoba.

The holding of the Rural Health Conservation Contest in Canada is without question advancing the movement for adequate rural health services

in every province. The visits made by Dr. James Wallace, Associate Field Director of the American Public Health Association, to many of the health units participating in the contest have been greatly appreciated by the directors of the units. The Canadian Public Health Association is deeply indebted to the American Public Health Association and to the W. K. Kellogg Foundation for making possible the holding of the contest in Canada.

GRANT FLEMING, *Chairman.*

J. T. PHAIR, *Secretary.*

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#### REPORT OF THE COMMITTEE ON THE CERTIFICATION OF SANITARY INSPECTORS

IT may fairly be said that one of the objectives of the Canadian Public Health Association in establishing the Committee on the Certification of Sanitary Inspectors has been attained. Throughout Canada it is recognized by departments of health and sanitary inspectors alike that a definite standard of qualifications for the office of sanitary inspector has been established. To this extent the Association can feel gratified, particularly as the steps that have been taken have had the hearty approval of the Canadian Institute of Sanitary Inspectors. Five years is far too short a period to permit of the development of standards of qualifications to the level desired. Last year the regulations in regard to preliminary education of candidates for the certificate were amended to require the completion of three years of high-school work or its equivalent in secondary-school education. The committee gave due notice to departments of health and sanitary inspectors that after December 31, 1938, every candidate desiring to take the examinations must be able to meet this requirement. Since it was realized that many of those who have served in sanitary inspection for a number of years might desire to obtain the certificate but might not have the preliminary education required by the committee, provision was made, since the inception of the examinations in 1935, to permit those who have been employed as sanitary inspectors to take the examinations without being obliged to meet the preliminary educational requirement. This exception applied only to employed sanitary inspectors. Those who registered on or before December 31, 1938, are therefore being permitted to take the examinations in September, 1939, without furnishing evidence of having completed a satisfactory secondary-school education. One of the recommendations which will be considered this year is the raising of the preliminary educational requirement to the completion of four years of high-school work or its equivalent. In keeping with the Committee's policy of giving adequate notice of such changes, it is suggested that this requirement be made effective for candidates registering in 1941.

From the beginning of the work it was felt that adequate preparation and training were essential. Detailed reports are required to be completed by the candidates, indicating the extent of their preparation and experience. It is the desire of the committee to study ways and means of broadening the basis

of training. As the majority of employed sanitary inspectors who have desired to take the examinations have already done so or have made application for this year's examinations, the problem that faces the committee now relates primarily to candidates who wish to become sanitary inspectors. The experience of the committee has afforded evidence that prospective inspectors are most anxious to obtain adequate experience and welcome the suggestions and directions given to them. The publication of the Manual by the committee has filled an urgent need. A new edition of the Manual is being prepared and will include additional sections. Courses of lectures have been provided in several of the larger cities. In Toronto a course consisting of thirty lectures and field demonstrations is being given by the Department of Public Health. This has been open to members from adjacent municipalities. In Winnipeg a group of qualified inspectors has provided a course of specialized training in food inspection. In a number of cities special facilities have been provided for candidates who desired to obtain field experience.

A suitable course of training for sanitary inspectors is being provided in the School of Applied Social Hygiene in the University of Montreal, which will provide didactic and field work.

The problem of providing training is, however, not solved. Many of the applicants reside in small places, often many miles distant from any suitable urban area which would provide training through apprenticeship. Extended courses requiring residence in urban centres cannot be utilized by many candidates because of the expense involved. Correspondence courses might be of value but serious practical difficulties would arise in the planning of such courses by the committee. The committee has realized, too, that training should be continued after the candidates have received the certificate. It is planned to send at intervals selected material in mimeographed form or reprints of articles to candidates who have obtained the certificate and are members of the Association.

There remains the problem of the more adequate recognition of the office of sanitary inspector. The Public Health Acts of the various provinces call for the appointment of sanitary officers in all municipalities. This requirement dates back to the English Public Health Act of 1875, which formed the basis of Public Health Acts in general in Canada. The duties of the sanitary inspector were those relating to nuisances—duties that could be discharged by any citizen. As long therefore as public health administration in the various provinces is conducted by individual municipalities, the majority of sanitary inspectors will be appointed on a part-time basis, serving small urban and rural areas. Until such small areas are combined for health administration to constitute populations large enough to support a full-time medical officer of health and staff, there can be little change in the status of the sanitary inspector in the smaller municipalities. It is recognized that the development of full-time health services in many of the provinces must be a matter of years. The provinces of Manitoba and British Columbia have enacted legislation requiring that sanitary inspectors being appointed on a full-time basis must have an acceptable qualification. In Ontario also provision has been made for the

establishing of qualifications of public health personnel. The committee is again presenting the matter to the remaining provinces so that the subject may be kept before them.

Examinations were conducted on September 21, 22 and 23, 1938, in six provincial centres: Vancouver, Edmonton, Regina, Winnipeg, Toronto, and Montreal. One day was utilized for the preparation of an assigned inspection report, half a day for the conduct of the oral examinations, and the remaining day and a half for the writing of three examinations in sanitation, food control, and prevention and control of communicable diseases. Eighteen provincial examiners co-operated in the conduct of the examinations. The written papers were read by the members of the Central Committee.

Of approximately eighty candidates who made formal application, fifty were permitted to write the examinations. Of this number, thirty-eight passed in all subjects, seven were conditioned in one subject, and four failed. Candidates who fail in one subject are permitted to re-write the paper at the next annual examination and must complete the work before the certificate is granted. The successful candidates, and the candidates conditioned in one subject, were as follows:

*British Columbia:* Gordon H. Keown, Vancouver; Clifford Mallett, Vancouver; Norman E. Pengelly, New Westminster; Walter W. Shorrock, Goldstream P.O. (*Communicable Diseases*) Edwin Southen, North Vancouver; Thomas N. Taylor, Vancouver.

*Alberta:* James H. Crichton, Calgary; Ernest V. Staney, Calgary.

*Saskatchewan:* Ronald Gilbert, Regina.

*Manitoba:* Eric Hawkesworth, Winnipeg.

*Ontario:* F. T. Badger, Toronto; V. S. Baker, London; G. Buckley, Toronto (*Sanitation*); T. P. Cox, Hamilton; L. I. Dodgson, Toronto; W. G. Dodge, London; R. G. Ford, Toronto; E. C. Gent, Toronto; L. H. Hancey, Toronto; S. Harris, Geraldton; C. E. Holmes, Walkerville; C. S. Huband, Ottawa; R. P. Hughes, Ottawa; J. M. Johnston, Toronto (*Communicable Diseases*); J. L. Kennedy, Hamilton; N. R. Laxton, Toronto; D. S. McKee, Toronto; R. M. MacPherson, Peterborough; J. Meehan, Timmins (*Sanitation*); R. L. Moore, Toronto; J. O'Hanley, Hamilton; O. W. Owen, Toronto; P. Payette, Cornwall (*Communicable Diseases*); G. H. Powell, Toronto; F. Rothery, Sudbury (*Communicable Diseases*); H. Sharp, Toronto; D. B. Shutt, Guelph; W. L. Smith, Toronto; W. C. Staples, Toronto; Dr. T. G. Waghorn, Brockville; D. J. Wood, Peterborough. W. Gray, Toronto, was granted standing in the field investigation report and the oral examination.

*Quebec:* L. Auguste Beaubien, Nicolet; J. W. Gaudette, St. Hyacinthe; T. O. Lavoie, Montreal.

*Nova Scotia:* Allister Grant, Glace Bay (*Sanitation*).

The examination papers in the three written subjects, *Sanitation*, *Food Control and Legislation*, and *Prevention and Control of Communicable Diseases*, were as follows:

## SANITATION

*Time: 3 hours*

*Important: Answer any FIVE questions*

1. (a) Describe the construction of a satisfactory dug-well for use of a farm house, illustrating by a sketch.  
(b) Outline the procedure which you would follow in taking a sample of water from a well.

- (c) Describe the routine bacteriological tests of water, as conducted in a laboratory.
- (d) Give in detail the method which you would follow in chlorinating a gallon of water from a polluted well.
2. A rural school accommodating 100 pupils is provided with flush toilets. Describe the design and construction of a suitable septic-tank installation for disposal of excreta, giving dimensions. Illustrate with a sketch. What is the function of each part of the installation?
3. (a) Define the following terms: house-drain, grease-trap, venting, back-syphonage, cross-connection.
- (b) Describe in detail one method for testing a plumbing and drainage installation.
4. Outline the provisions which should be made in the construction of a camp for 100 men in a mining area, including bunk-house accommodation, provision of safe water, sanitary disposal of excreta, and disposal of refuse and manure.
5. (a) What is the composition of air?
- (b) What factors influence heat-loss from the body?
- (c) What points should be noted in investigating the atmospheric condition of a room?
- (d) What are the requirements for ventilation of schools in the province or municipality in which you reside?
6. Write notes on: chemical toilet, the causes of lead poisoning, activated sludge treatment of sewage, air conditioning.

## FOOD CONTROL AND LEGISLATION

*Time: 3 hours*

*Important: Answer any FIVE questions*

1. Discuss the pasteurization of milk under the following headings:
  - (a) Definition (according to the regulations of your province).
  - (b) Purpose.
  - (c) Essential equipment in a dairy plant for pasteurization and bottling.
  - (d) Possible defects in equipment and operation.
2. You are asked to report on a small plant manufacturing "soft drinks". Outline in detail the steps which you would take in making the inspection, indicating the minimum requirements for such a plant.
3. (a) What departments of the Federal Government have responsibilities in connection with the distribution and sale of foods and drugs in Canada? Outline the responsibilities of these departments and how the work is conducted in each case.
- (b) What responsibilities are assumed by a municipality in regard to the supervision of food offered for sale?
4. Name five diseases that are commonly transmitted through food (including milk), stating the causative agents, the modes of transmission, and methods of prevention.
5. (a) Outline the life-history of the house-fly.
- (b) What diseases may be transmitted by the house-fly? Indicate how the infection is transmitted in each disease.
- (c) What measures should be taken in a municipality to control flies?
6. Write notes on:
  - (a) Washing and sterilization of dairy-farm utensils.
  - (b) Interpretation of a bacteriological report of a milk sample.
  - (c) Washing and sterilization of dishes and eating utensils in a restaurant.
  - (d) Condemnation of canned foods.

## PREVENTION AND CONTROL OF COMMUNICABLE DISEASES AND RELATED SUBJECTS

*Time: 3 hours*

*Important: Answer any FIVE questions*

1. What are the characteristics common to all communicable diseases? Discuss fully the modes of transmission of communicable diseases, giving examples.
2. Describe in detail the procedure in fumigating a dwelling house with hydrocyanic acid gas. What safeguards are required?
3. What is the cause of scarlet fever? How is this disease transmitted? What are the quarantine regulations relating to this disease in your province? What is the period of isolation? What measures may be taken to prevent scarlet fever?
4. Define "active immunity" and "passive immunity". Name three communicable diseases for which there are specific means of prevention by vaccination. Name the product which is used in each instance and state how it is administered.
5. What is the purpose of quarantining the contacts of certain communicable diseases? On what is the length of the quarantine period based? Why are quarantine measures more effective in some communicable diseases than in others? (Illustrate by reference to several diseases.) For what diseases are placards affixed to dwellings in your community? What is their purpose.
6. Write notes on: common causes of infant deaths, concurrent disinfection, disinfection of excreta of a typhoid patient, venereal diseases, transmission of tuberculosis.

The members of the Committee wish to express their thanks to the members of the six provincial examining boards who so kindly co-operated in the conduct of the examinations. In each province the chairman of the board was named by the Department of Health and, with the assistance of two or more members, made the arrangements and conducted the examinations. The boards of examiners were as follows:

*British Columbia:* Dr. J. W. McIntosh, Senior Medical Health Officer, Vancouver, chairman; Mr. Alexander McCulloch, C.S.I.(C.), Assistant Plumbing Inspector, Vancouver; and Mr. R. M. Martin, C.E., City Engineer's office, Vancouver.

*Alberta:* Dr. G. M. Little, D.P.H., Medical Officer of Health, Edmonton, chairman; Mr. J. Butterfield, Public Health Inspector, Provincial Department of Health, Edmonton; and Dr. R. M. Shaw, Director, Provincial Laboratory, Edmonton, who kindly agreed to serve in the absence of Mr. Dudley B. Menzies, C.E., Provincial Sanitary Engineer.

*Saskatchewan:* Mr. J. G. Schaeffer, B.Sc., Sanitary Engineer, Provincial Department of Public Health, Regina, chairman; Mr. Frank Cartlidge, Sanitary Inspector, Moose Jaw; and Dr. G. R. Walton, D.P.H., Medical Officer of Health, Regina.

*Manitoba:* Dr. C. R. Donovan, D.P.H., Epidemiologist, Provincial Department of Health and Public Welfare, Winnipeg, chairman; Mr. W. P. Brereton, C.E., City Engineer, Winnipeg; and Mr. John Foglie, Chief Sanitary Inspector, Provincial Department of Health and Public Welfare, Winnipeg.

*Ontario:* Mr. Hugh McIntyre, A.R.San.I., Provincial Sanitary Inspector, Kirkland Lake; and Dr. L. A. Pequegnat, Deputy Medical Officer of Health, Toronto. As chairman of the examining board for Ontario, I am indebted also to the following members for their assistance in the conduct of the oral examinations: Dr. M. H. Brown, Dr. R. D. Defries, and Dr. D. T. Fraser, School of Hygiene, University of Toronto; Dr. A. R. B. Richmond, Director, Division of Food Control, Department of Public Health, Toronto; Mr. George F. Fitzsimons, Chief Plumbing Inspector, Department of Public Health, Toronto; and Dr. J. T. Phair, Chief Medical Officer of Health, Province of Ontario, and Secretary of the Committee.

*Quebec:* Mr. T. J. Lafrenière, C.E., Chief Sanitary Engineer, Ministry of Health of Quebec, chairman; Dr. A. D. Groulx, C.P.H., Director, Department of Health of Montreal; and Mr. Aimé Cousineau, C.E., Superintendent-Engineer, Division of Sanitation, Department of Health of Montreal.

Since the holding of the first examinations in 1935, one hundred and thirty-seven inspectors have obtained the certificate of the Association.

The 1939 examinations will be held in the various provincial centres on September 20th, 21st, and 22nd. More than sixty-five applications for these examinations have already been accepted.

J. G. CUNNINGHAM, *Chairman.*

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#### REPORT OF THE COMMITTEE ON RESOLUTIONS

THE Committee on Resolutions, comprising Dr. M. R. Bow, chairman, Dr. P. S. Campbell, Dr. R. B. Jenkins, and Dr. J. T. Phair, presented the following resolutions which were adopted by the Executive Council and approved by the annual meeting in Toronto on June 14th:

##### BE IT RESOLVED:

1. That the thanks of the Association be extended to the Press of Toronto for their co-operation and for the allotment of space given to the papers and deliberations of this conference.
2. That the Association extend to the Management of the Royal York Hotel their sincere appreciation of the excellent service provided for the members during the convention.
3. That the felicitations of the Canadian Public Health Association in convention be extended by a representative of the Association to the American Public Health Association at the time of its annual meeting in October.
4. That the Association notes with deep regret the deaths of several of its members during the past year and requests that the Secretary be instructed to convey to the members of their families the sympathy of the Association in their bereavement.
5. That the appreciation of the Association be extended to the American Public Health Association and the W. K. Kellogg Foundation for making possible the conduct of the second Rural Health Conservation Contest in Canada.
6. Whereas the Canadian Life Insurance Officers Association has expressed interest in and appreciation of the work of this association by again granting financial support,  
Be it resolved that this association express to the Canadian Life Insurance Officers Association their hearty thanks for their continued support and assure them of the desire of this association to further in every way all measures designed to improve the state of the public health.

7. Whereas the Province of Ontario has enacted legislation requiring the pasteurization of milk offered for sale, and is enforcing the said enactment;

And whereas this association is convinced that pasteurization, properly conducted, is the only practicable method of ensuring the safety of milk supplies,

Be it resolved that this association heartily supports the action taken by the Province of Ontario in requiring compulsory pasteurization of milk offered for sale and conveys to the Provincial Government of Ontario their endorsement of this progressive step which has been taken by the Government in the safeguarding of the health of the people.

Be it resolved further that the advantages of compulsory pasteurization of milk offered for sale be brought to the attention of the other provincial governments in Canada, urging that consideration be given to the adoption of similar legislation.

8. Whereas the Department of Pensions and National Health, in the discharge of its responsibilities in protecting the interests of the citizens of Canada in the regulation of the sale of foods and drugs as provided under the Food and Drugs Act, has maintained that the term "milk" shall mean whole milk, unadulterated within the meaning of the said Act, and has insisted that preparations of milk that are now marketed containing chocolate and other flavouring substances, sugar, milk powder, etc., be not labelled as milk.

Be it resolved that this association express its hearty approval of this action of the Department of Pensions and National Health and, further, urge the adoption of a suitable definition of milk.

9. Whereas the control of preparations containing vitamins has been urgently required in Canada, and whereas the Department of Pensions and National Health, through the amendments made in the Food and Drugs Act at the last session of Parliament, is now enabled to exercise such control,

Be it resolved that this association express its appreciation of the action taken by the Dominion Government in this regard.

10. Whereas, in the past, there has been no control over the preparation and sale of cosmetics from the standpoint of possible danger to health, and whereas the Department of Pensions and National Health, through the recent amendments to the Food and Drugs Act, is now empowered to exercise such control,

Be it resolved that this association endorse this action.

11. Whereas this association through its Committee on the Certification of Sanitary Inspectors has purposed to improve the administration of public health through establishing of standards for sanitary inspectors, and believes that properly qualified sanitary inspectors are essential in public health work,

Be it resolved that this association urges that municipal and provincial authorities appoint only certified sanitary inspectors for full-time appointments, and part-time appointments wherever possible.

12. Whereas the Canadian Public Health Association recognizes the importance of adequate nutrition as a factor in the maintenance of health, the

Association desires to express to the Dominion Government its appreciation of the establishment, through the Department of Pensions and National Health, of a Council on Nutrition. The Canadian Public Health Association desires to express to the Council on Nutrition its hearty co-operation in forwarding the objectives of the Council.

13. Whereas the advancement of public health in Canada is in large measure dependent on effective leadership and the provision of health services on a full-time basis;

And whereas the provinces are now unable to adequately assist the municipalities in such full-time health services, due to the present expenditures by the Provincial Departments of Health for the provision of hospitalization and other treatment charges, including the care of the tuberculous, the mentally ill, and those admitted to general hospitals,

Be it resolved that this association urge the consideration by the Federal Government of the principle of grants-in-aid to the provinces for the development of preventive health services.

14. Whereas there is urgent need in Canada for the more adequate provision of medical, dental and nursing services, more particularly in rural areas;

And whereas the experience in Great Britain and other countries has demonstrated the value of a system of compulsory contributory health insurance;

And whereas this association believes that in any health insurance program, adequate provision for preventive health services is fundamental,

Be it resolved that this association endorses the principle of national health insurance and urges that preventive services form an essential part of any program.

15. Whereas the legislation embodied in Part II of the National Housing Act of 1938 is soundly conceived;

And whereas research work is now being conducted by the Dominion Housing Commission which will be of practical and material benefit in low-cost housing projects,

Be it resolved that this association urge the adoption of the necessary enabling legislation by the provinces which have not as yet passed such legislation;

Be it further resolved that this association recommend to the Dominion Government the continuation and amplification of these studies and the making public of the results as quickly and effectively as possible.

16. Whereas the subject of housing is a matter of national concern;

And whereas this association has already established a Committee on Housing which has issued a number of publications on this subject;

And whereas this association is vitally concerned in this matter from the standpoint of health,

Be it resolved that this association assist in every way the holding of a national housing conference.

## BOOKS AND REPORTS

**The Collapse Therapy of Pulmonary Tuberculosis.** By John Alexander, F.A.C.S. Published by Charles C. Thomas, Springfield, Ill. and Baltimore, Md. 705 pages. \$15.00.

THE COLLAPSE THERAPY OF PULMONARY TUBERCULOSIS is probably the most comprehensive work on the surgical treatment of tuberculosis yet written. The text of the author's first book "The Surgery of Pulmonary Tuberculosis" which appeared 14 years ago, has been completely re-written with the exception of the historical sections. The illustrations have been extended.

The author has written this book both for the internist and the surgeon and hence substantial attention has been given to the discussion of the selection of patients for various operative procedures as well as to technique and operative management.

The observations included in the text are based upon a wide experience with the surgical treatment of tuberculosis covering some 1,800 patients and the author is to be complimented on the thorough manner in which he traces the evolution of the different types of collapse therapy to their present place in the treatment of tuberculosis.

Tables are presented which illustrate the comparative results in patients who are given collapse therapy compared with those not so treated. These data serve to effectively convince the reader that the surgical treatment of tuberculosis has long since passed the experimental stage.

The chapter on physiological principles of collapse therapy is most complete and sound. The pathology associated with the collapsed lung and the mechanical and physiological factors associated are clearly described. Various operations ranging from the comparatively simple pneumothorax to the more technical thoracoplasty are described in minute detail, even to the choice of the instrument.

It has been said that a municipality's

health record bears a direct relationship to the efficiency of its health department. After reading this volume one cannot help but think that the efficiency of a sanatorium is in proportion to the percentage of its patients undergoing at least some type of collapse therapy. The importance of collapse therapy to public health is well demonstrated by the large number of patients becoming sputum-free or sputum-negative following collapse of the lung.

G. C. Brink

**Salle's Fundamental Principles of Bacteriology.** By A. J. Salle, B.S., M.S., Ph.D., Assistant Professor of Bacteriology, University of California. Published by the McGraw-Hill Book Co. Inc., New York, 1938. 647 pages. \$4.00.

THIS book is designed to serve a double purpose in that the text is correlated throughout with laboratory exercises, questions and references. This arrangement should appeal to those concerned with the teaching of general bacteriology and should also prove useful to the student.

Balance is fairly well maintained though in the chapters on biological stains and bacterial diseases of plants less space and fewer examples would have served the purpose adequately while greater elaboration in dealing with the microscope and pure-culture technique would have been of advantage. In discussing the bacteriology of foods a fuller account of bacterial "food poisoning" would have been a distinct improvement.

As is usual in this type of book, medical bacteriology receives very limited attention and consequently the text is robbed of much that is of stimulating interest to the student. The value of sketchy tabulated material in presenting this phase of the subject is very questionable. Use of outmoded terms such as "*Streptococcus pyo-*

*genes*" and "*Streptococcus puerperalis*", and the generalization that filterable viruses "cannot be observed with the highest powered microscope" are unfortunate.

F. O. Wishart

**The Etiology of Trachoma.** By Louis A. Julianelle, Ph.D., Chairman of the Trachoma Commission, Washington University, St. Louis. Published by the Commonwealth Fund, New York, 1938. 241 pages, 10 plates, 2 figures. \$3.25.

In this volume is presented a summary of the research carried out by the Trachoma Commission, Washington University. A critical analysis of the author's experimental data in the light of findings of other workers is presented following the presentation of the known facts of the epidemiology of this disease. The tenability of claims made for the etiological significance of various associated micro-organisms is discussed and the burden of proof points to the causative agent being a virus. The author concedes the possibility of different interpretations of the experimental data and that the exact nature of the infective agent is still unsettled.

The illustrations, some in colour, are exceptionally good and a bibliography which extends over forty-four pages is appended.

F. O. Wishart

**The Biology of Arteriosclerosis.** M. C. Winternitz, M.D., R. M. Thomas, M.D., and P. M. LeCompte, M.D. Published by Charles C. Thomas, 129 East Monroe Street, Springfield, Ill., 1938. 129 pages. \$4.00.

THIS book presents a comprehensive statement on the biology of arteriosclerosis. The opening chapter deals with materials and methods, the value of vessel injection and clearing of specimens, and the method of colour photography using Kodachrome A. The authors are to be congratulated on

the excellent illustrations included. Three chapters are devoted to considerations of the embryological development, anatomy and physiology of the vasa vasorum. The adaptive changes, both physiological and pathological, are also discussed. Later chapters cover the secondary changes within the mural vascular channels, their relation to thrombosis particularly of the coronary vessels, and the vascularity of heart valves in health and disease.

Throughout the book vascular lesions are especially well shown in the coloured photographs and drawings of cleared and injected specimens and the findings are discussed in the closing chapter. This discussion is particularly valuable, not so much because of elucidating the cause of arteriosclerosis as in pointing out new methods of attack on this important problem.

H. A. Ansley

**Oh, Doctor! My Feet!** By Dudley J. Morton, M.D. Published by D. Appleton-Century Company Inc., New York, 1939. 116 pages. \$1.75.

THE author of this book has set himself the task of stimulating some active thinking about the present situation in the care and treatment of the feet. No criticism is directed at any group but it is pointed out that ideas four decades old still remain unchanged—a truly unique stagnation—even for the feet.

The presentation consists of a narrative record of conversations and observations made in connection with a series of illustrative cases. Diagrams reduce the observations to simple terms understood by everyone. This book draws attention to a neglected field of professional interest in a constructive way and indicates to the public and the profession the service which the latter can render in foot ailments and care.

A. H. Sellers

